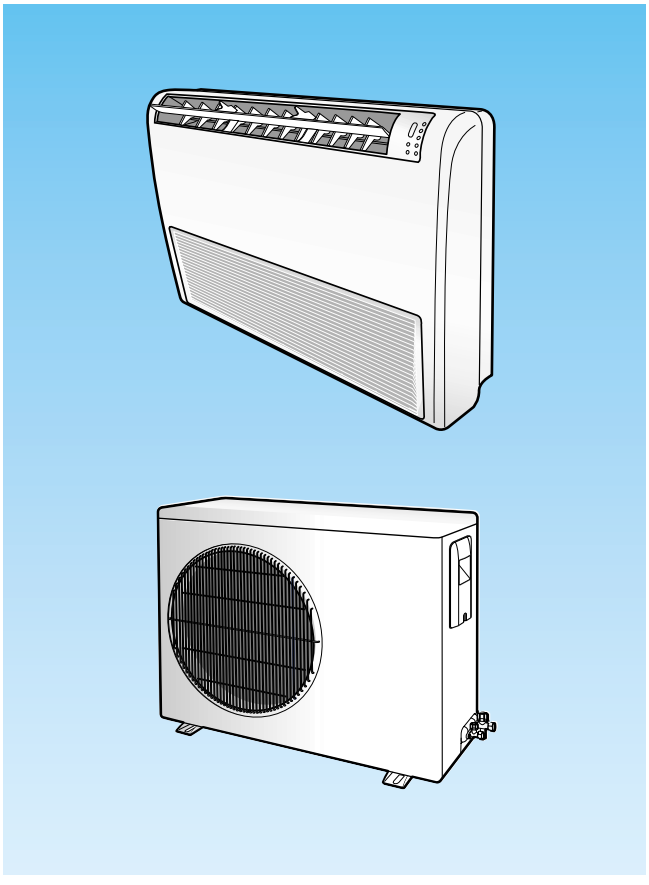
SAMSUNG

CEILING TYPE AIR CONDITIONER

INDOOR UNIT	OUTDOOR UNIT
FH052EAMT	UH052EAMT
FH070EAMT	UH070EAMT

SERVICE Manual

AIR CONDITIONER



CONTENTS

1. Product Specifications
2. Disassembly and Reassembly
3. Refrigerating Cycle Diagram
4. Set Up the Model Option
5. Control Specification & Troubleshooting
6. Exploded Views and Parts List
7. PCB Diagram
8. Wiring Diagram
9. Schematic Diagram

1. Product Specifications

1-1 Table

MODEL	INDOOR UNIT			FH052EAMT	FH070EAMT
	OUTDOOR UNIT			UH052EAMT	UH070EAMT
Capacity	Cooling		Btu/h	18,700	23,800
			W	5,500	7,000
	Heating		Btu/h	20,400	26,100
			W	6,000	7,700
Power Supply			ø/V/Hz	1/220 ~ 240/50	1/220 ~ 240/50
Power Input	Cooling		W	1,800	2,400
	Heating		W	1,850	2,600
Running Current	Cooling		A	8.0	11.0
	Heating		A	8.2	11.9
Indoor Unit	Fan Speed	H.H	r.p.m	-	-
		Hi	r.p.m	1,020	1,160
		Mid	r.p.m	920	1,060
		Low	r.p.m	820	960
	Air Flow	H.H	m³/min	-	-
		Hi	m³/min	12	14
		Mid	m³/min	11	13
		Low	m³/min	10	12
	Noise Level(Hi) (Sound Pressure)	Cooling(Hi)	dB(A)	48	48
		Heating(Hi)	dB(A)	48	48
	Heat Exchanger	Type		Slit	Slit
		Row x Stages x Fin Pitch		3 x 12 x 1.5mm	3 x 12 x 1.5mm
	Fan	Type		Sirocco	Sirocco
		Motor Output	W	90	90
	Dimensions	H	mm	200	200
		W	mm	1,000	1,000
		D	mm	650	650
	Weight	Net / Gross	kg	22 / 26	22 / 26
Outdoor Unit	Fan Speed	Hi	r.p.m	750	850
		Low	r.p.m	400	340
	Air Flow(Hi)		m³/min	45	51
	Noise Level (Sound Pressure)	Cooling(Hi)	dB(A)	60	60
		Heating(Hi)	dB(A)	61	61
	Fan	Type		Propeller	Propeller
		Motor Output	W	60	73
	Compressor	Type		Rotary	Rotary
		Model		NN21VBAMT	NN29VACMT
		Motor Output	kW	1.3	1.9
		Protection		Internal	Internal

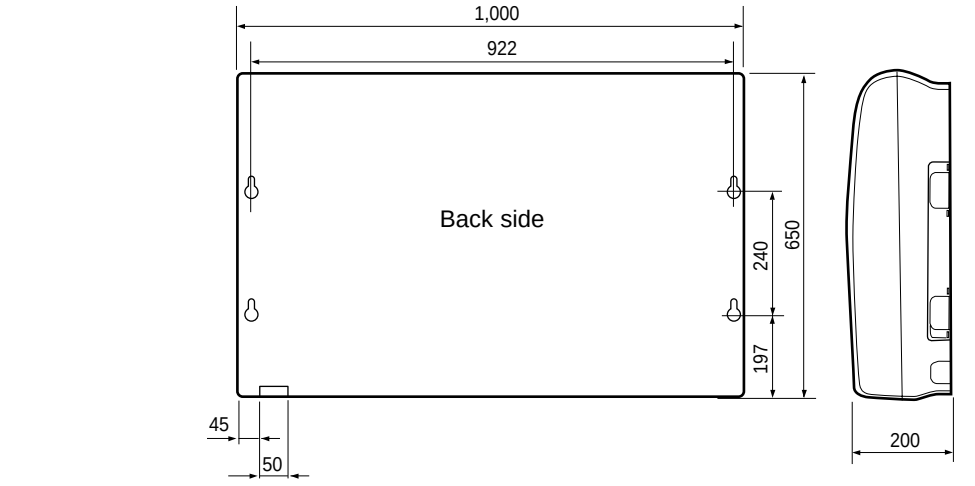
Table(cont.)

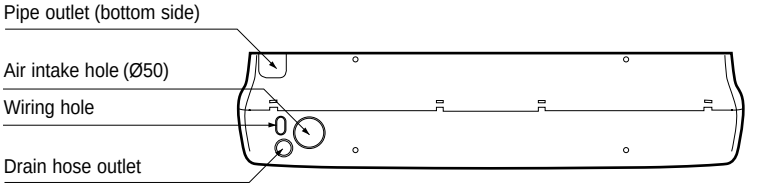
MODEL	INDOOR UNIT			FH052EAMT	FH070EAMT
	OUTDOOR UNIT			UH052EAMT	UH070EAMT
Outdoor Unit	Refrigerant	Type		R410a	R410a
		Charge	g	1,550	1,650
		Adding Charge	g/m	25	30
		Control		Elec.Expansion Valve	Elec.Expansion Valve
	Heat Exchanger	Type		Slit	Slit
		Row x Stages x Fin Pitch		2 x 28 x 1.5mm	2 x 28 x 1.5mm
	Dimensions	H	mm	648	648
		W	mm	880	880
		D	mm	310	310
	Weight	Net / Gross	kg	67 / 72	69 / 74
Piping	Pipe O.D Size	Liquid	mm(inch)	6.35(1/4")	6.35(1/4")
		Gas	mm(inch)	12.7(1/2")	15.88(5/8")
	Connection Method			Flare	Flare
	Between	Height	m	15	15
		Pipe Length	m	30	30

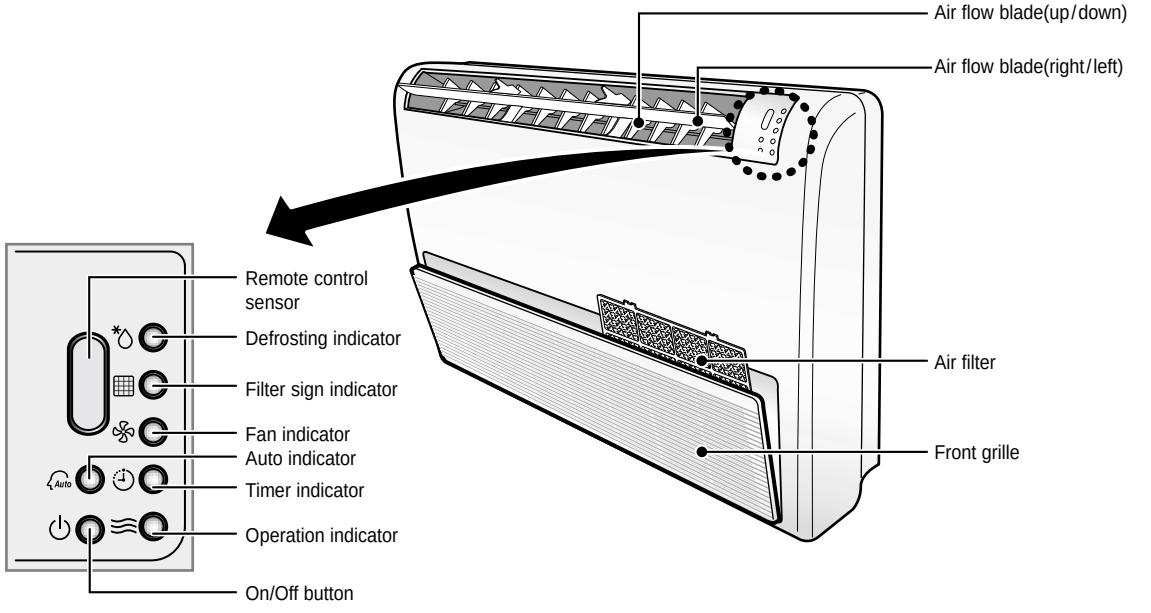
1-2 Dimensions

1-2-1 Indoor Unit

(Unit : mm)

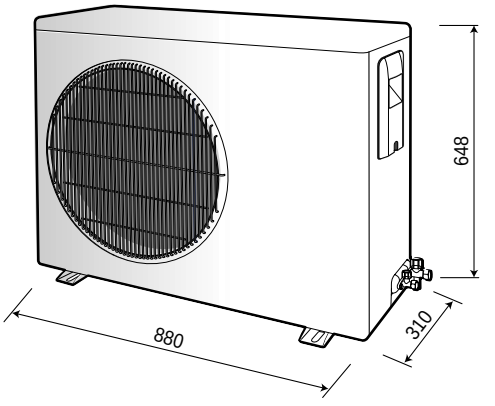






1-2-2 Outdoor Unit

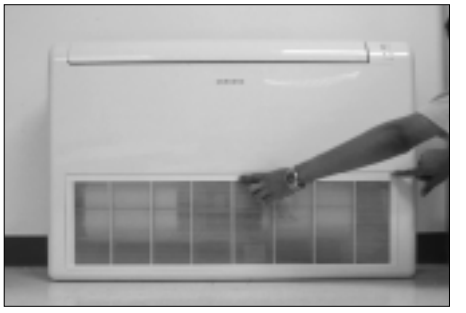
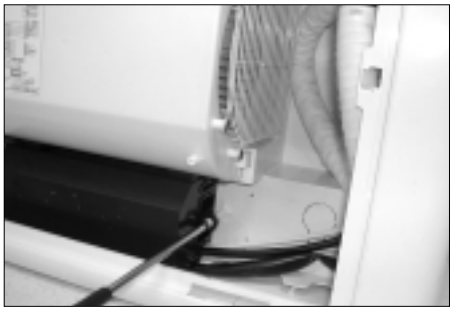
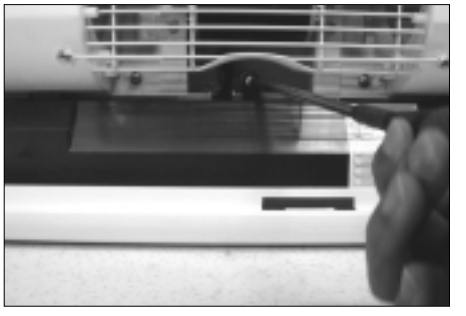
(Unit : mm)

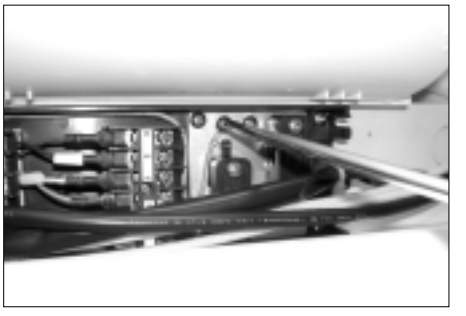
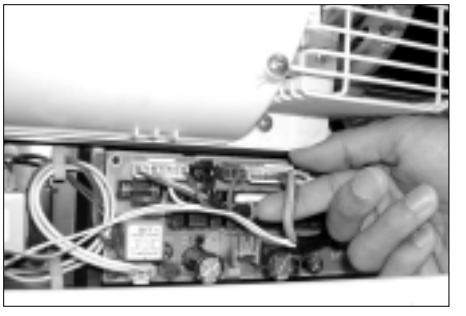
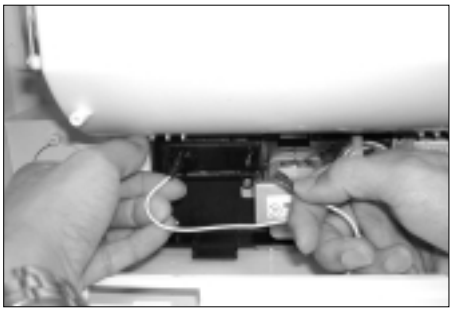


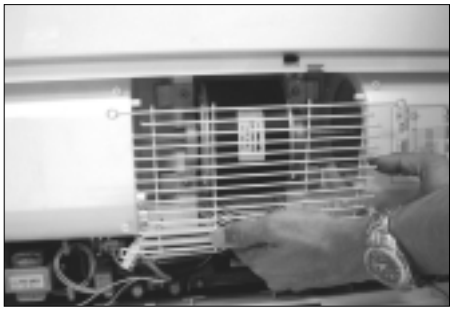
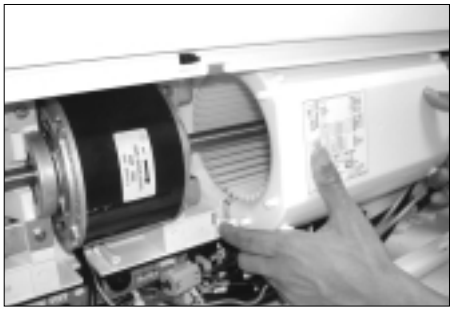
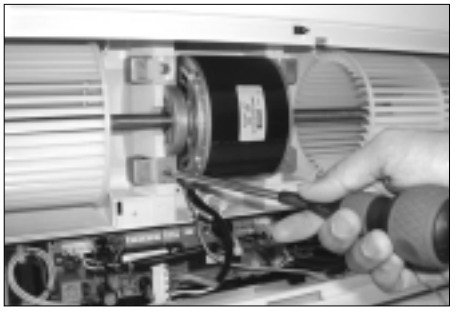
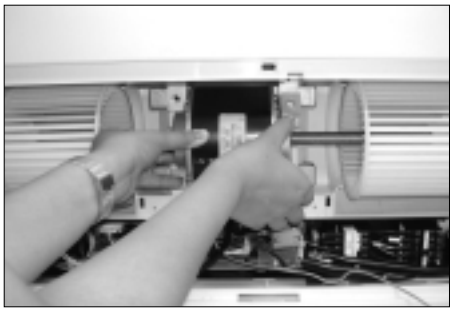
2. Disassembly and Reassembly

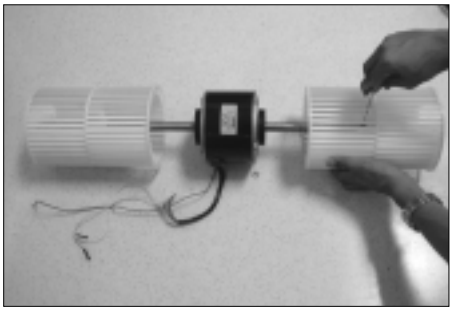
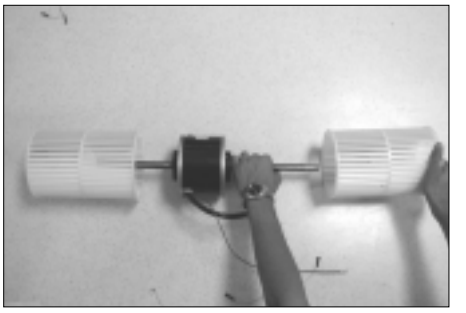
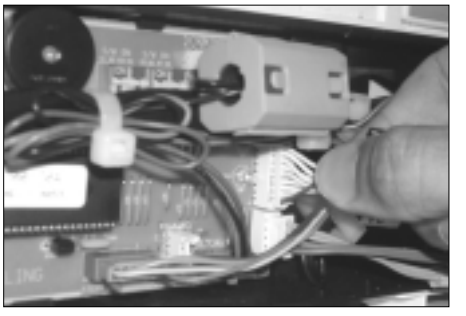
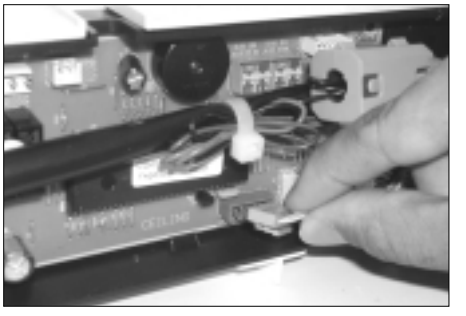
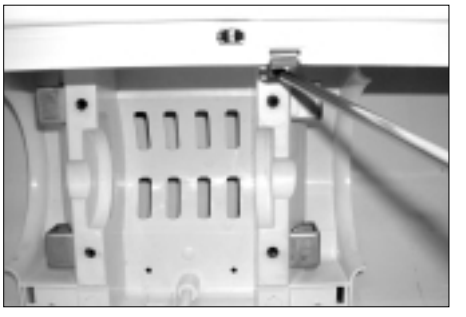
Stop operation of the air conditioner and remove the power cord before repairing the unit.

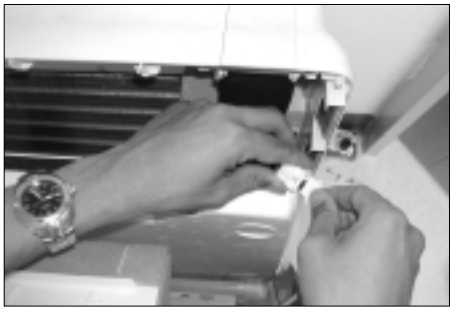
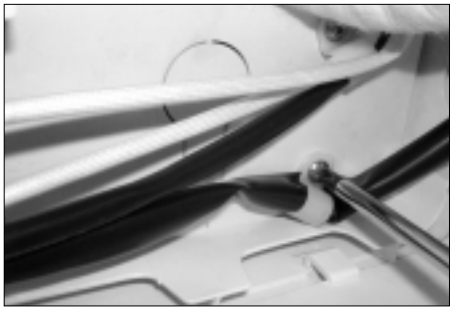
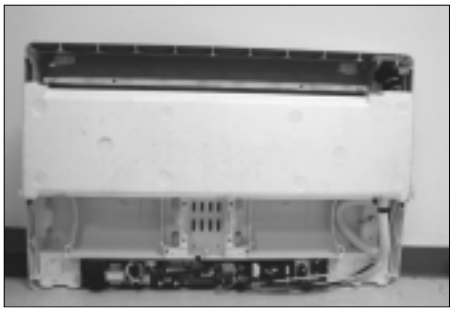
2-1 Indoor Unit

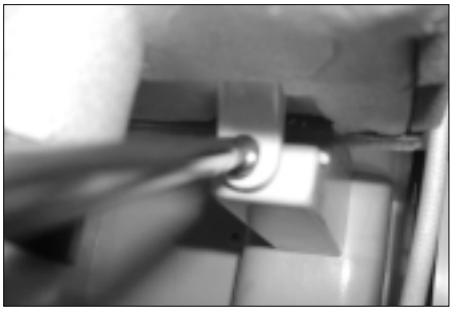
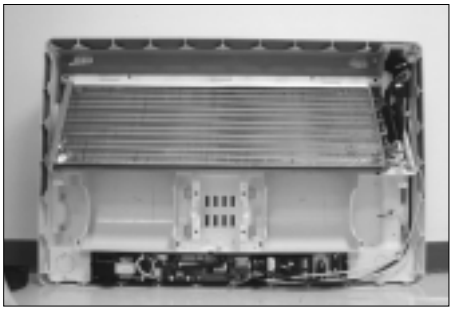
No	Parts	Procedure	Remark
1	Electrical Part	1) Open the grille by pressing 3 position. (center and both side)	
		2) Detach the air inlet grille.	
		3) Open the cover of component electrical box by removing 3 screws. (center and both side)	 

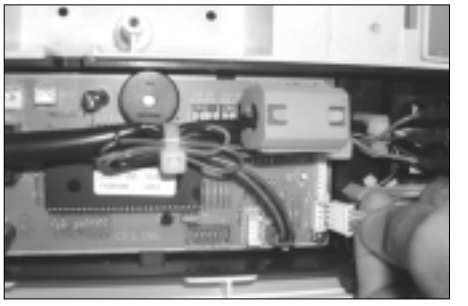
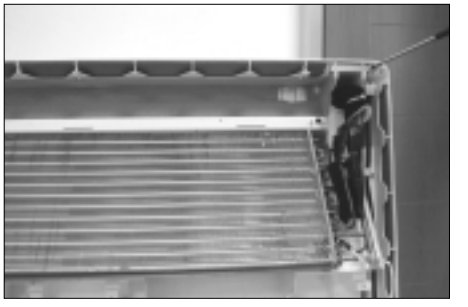
No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the screw and untie earth wire of motor.	
		2) Disconnect of housing of motor wire.	
		3) Disconnect the capacitor wire.	

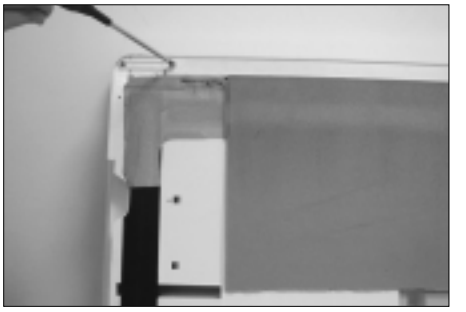
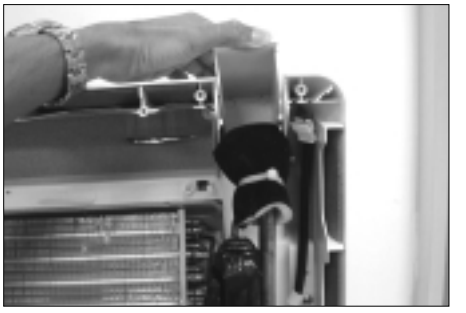
No	Parts	Procedure	Remark
		4) Loosen the guard safety by removing 6 screws.	
			
		5) Detach the upper case of fan. (2EA)	
		6) Loosen the 4 screws what is fix the motor.	
		7) Detach the fan and motor assembly.	

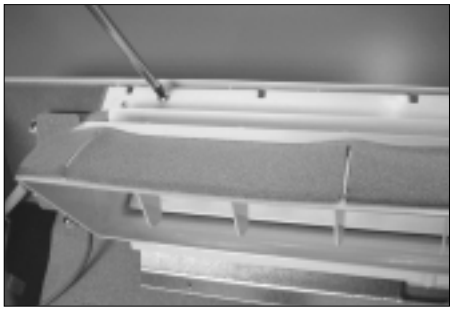
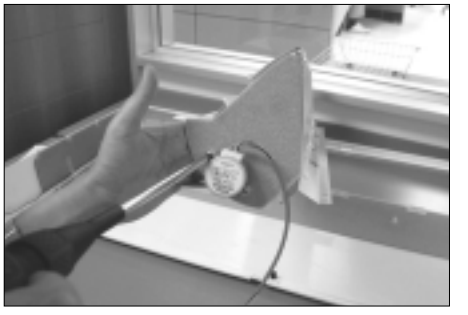
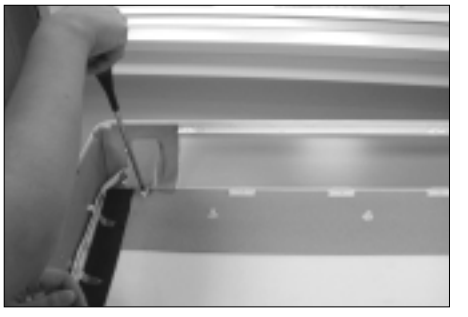
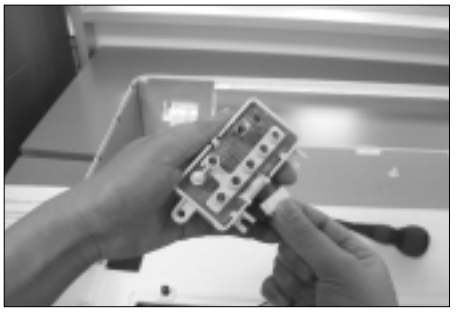
No	Parts	Procedure	Remark
		8) Loosen the set fixing bolts. (with a M3 wrench)	
		9) Detach the fan.	
3	Drain Pan	1) Disconnect the display pcb wire as shown in picture. (white housing)	
		2) Disconnect the step motor wire as shown in picture. (blue housing)	
		3) Disassemble the hanger bracket by removing the 1 screw.	

No	Parts	Procedure	Remark
		4) Loosen the 3 screws of front side.	
		5) Disassemble the assembly front cover part.	
		6) Disconnect the step motor wire as shown in picture.	
		7) Detach the wire clamp fixed in base part.	
		8) Detach the front cover assembly completely.	

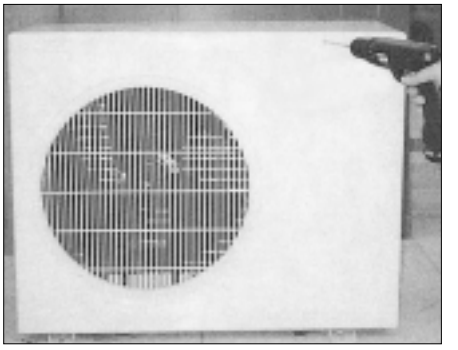
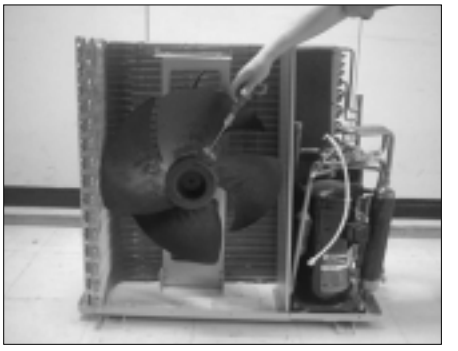
No	Parts	Procedure	Remark
		9) Loosen the screw what is fix with base part and drain pan. (upper side:2EA)	
		10) Loosen the screw what is fix with base part and drain pan. (lower side:2EA)	
		11) Detach the drain pan completely.	

No	Parts	Procedure	Remark
4	Evaporator	1) Disconnect the thermistor wire as shown in picture. (white housing)	
		2) Loosen the 2 screws shown in picture.	
		3) Loosen the 2 screws shown in picture and remove plastic part. (white)	
		4) Loosen the 2 screws shown in picture and remove steel bracket.	
		5) Disassemble the 4 screws steel plate in rear side of the unit.	

No	Parts	Procedure	Remark
		6) Loosen the 2 screws as shown in picture.	
		7) Detach the plastic cover as shown in picture.	
		8) Detach the evaporator assembly.	

No	Parts	Procedure	Remark
5	Stepping Motor	1) Loosen the 4 screws in rear side of front cover assembly as shown in picture.	
		2) Loosen the 2 screws as shown in picture.	
		3) Disassemble the blade and stepping motor assembly and remove the 2 screws stepping motor.	
6	Display PCB	1) Loosen the 3 screws in rear side of front cover assembly as shown in picture.	
		2) Disassemble display PCB assembly and disconnect wire. 3) Disassemble the display PCB.	

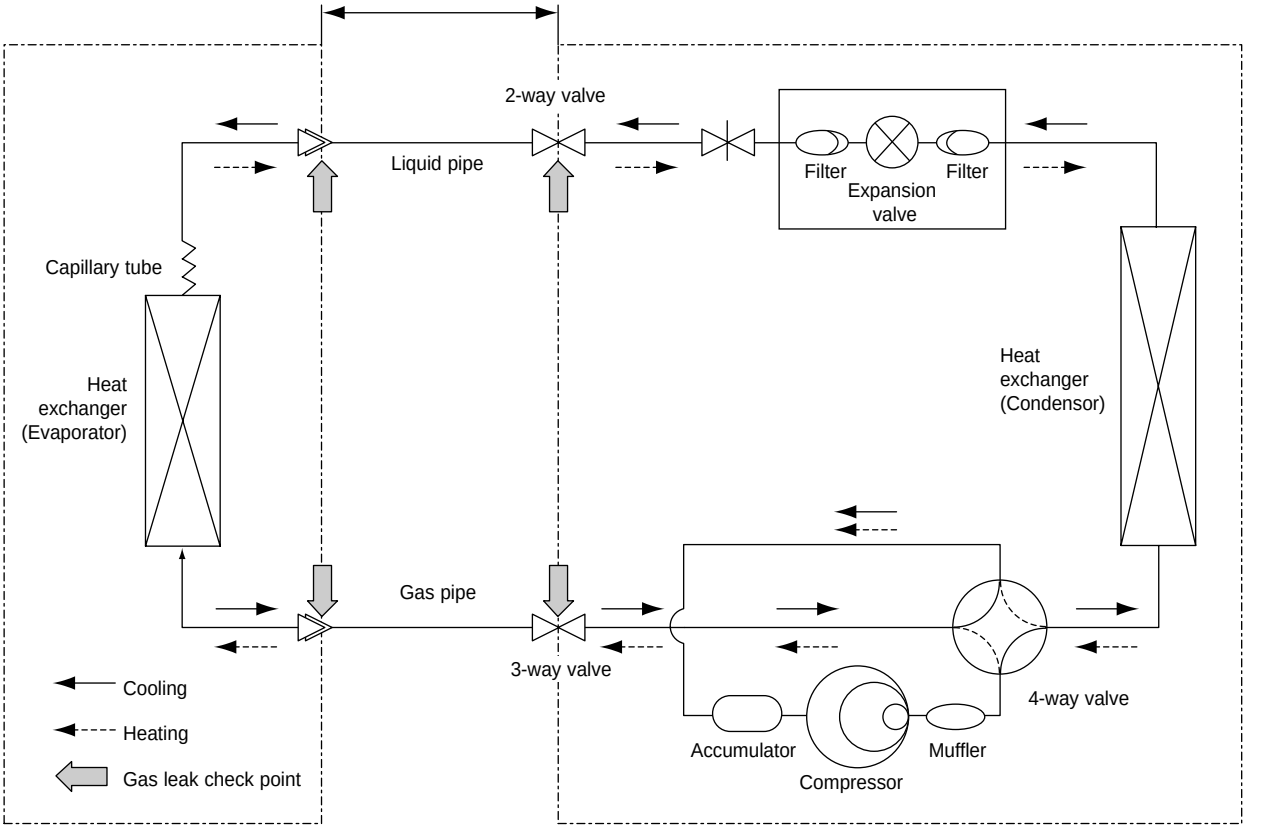
2-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Cabinet	1) Turn off the unit and remove the power cable. 2) Detach the top cover. 3) Detach the control box cover. 4) Unplug the ass'y cable. 5) Detach the cabi-side. 6) Detach the cabi-front. ● **Cautions** When you assemble the parts, check if the each parts and component electric box are fixed firmly.	
2	Fan Motor & Propeller Fan	1) Loosen the indicating bolt screw. 2) Disassemble the propeller fan.	

3. Refrigerating Cycle Diagram

Indoor Unit **Outdoor Unit**

❋ Allowable pipe length : Max. 30m
❋ Allowable drop distance : Max. 15m



4. Set Up the Model Option

4-1 Setting Option Setup Method

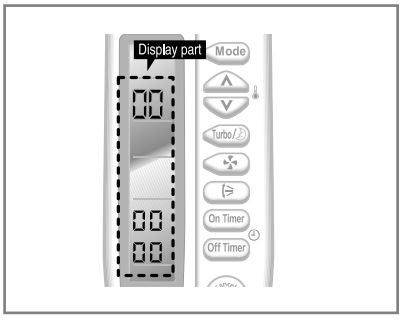
Option No. : 0851151-1d2340

Step 1 : **Enter the Option Setup mode.**

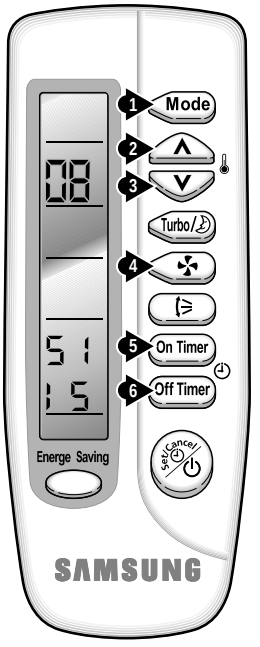
1st Take out the batteries of remote control.

2nd Press the temperature ▲ ▼ button simultaneously and insert the battery again.

3rd Make sure the remocon display shown as 00 00 00 .



Step 2 : **Enter the Option Setup mode and select your option according to the following procedure.**



✻ Setting is not required if you must 0 a value which has a 0 default.

1

The default value is 00 00 00 .
Otherwise, push the Mode button to 0 .
Every time you push the button, the display panel reads 1 or 0 repeatedly.

2

Push the ▲ button to set the display panel to 8 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

3

Push the ▼ button to set the display panel to 5 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

4

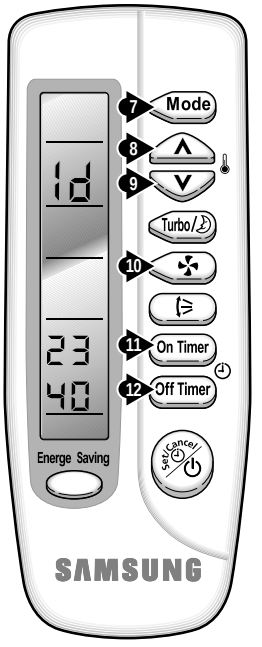
Push the button to set the display panel to 1 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

5

Push the On Timer button to set the display panel to 1 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

6

Push the Off Timer button to set the display panel to 5 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.



✻ Setting is not required if you must 0 a value which has a 0 default.

7

The default value is 10 .
Otherwise, push the Mode button to 1 .
Every time you push the button, the display panel reads 1 or 0 repeatedly.

8

Push the ∧ button to set the display panel to d .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

9

Push the ∨ button to set the display panel to 2 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

10

Push the Turbo button to set the display panel to 3 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

11

Push the On Timer button to set the display panel to 4 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

12

Push the Off Timer button to set the display panel to 0 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

Step 3 : Upon completion of the selection, check you made right selections.

Press the Mode Selection key, Mode to set the display part to 0 and check the display part.

➡ The display part shows 08 .
51
75

Press the Mode Selection key, Mode to set the display part to 0 and check the display part.

➡ The display part shows 1d .
23
40

Step 4 : Pressthe ON/OFF button .

When pressing the operation ON/OFF key with the direction of remote controller for unit, the sound “Ding” or “Diriring” is heard and the OPERATION LED lamp is flickering at the same time, then the input of option is completed.
(If the diriring sound isn’t heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

First, Remove the battery from the remote controller.
Second, Re-insert the battery into the remote controller.
Third, Press ON/OFF button( ) with the direction of remote controller for set.

■ OPTION ITEMS

REMOCON / MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
FH070EAMT	0	3	5	4	0	0	1	C	0	0	0	0
FH052EAMT	0	3	5	4	0	0	1	9	0	0	0	0

5. Control Specification & Troubleshooting

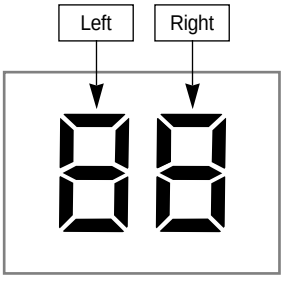
5-1 Operation Specification

5-1-1 Tracking process marked on display part

• Left numeral is an address that outdoor unit transfers communication.
0 - 1 - 2 - 3 ... - F (Calling indoor unit)

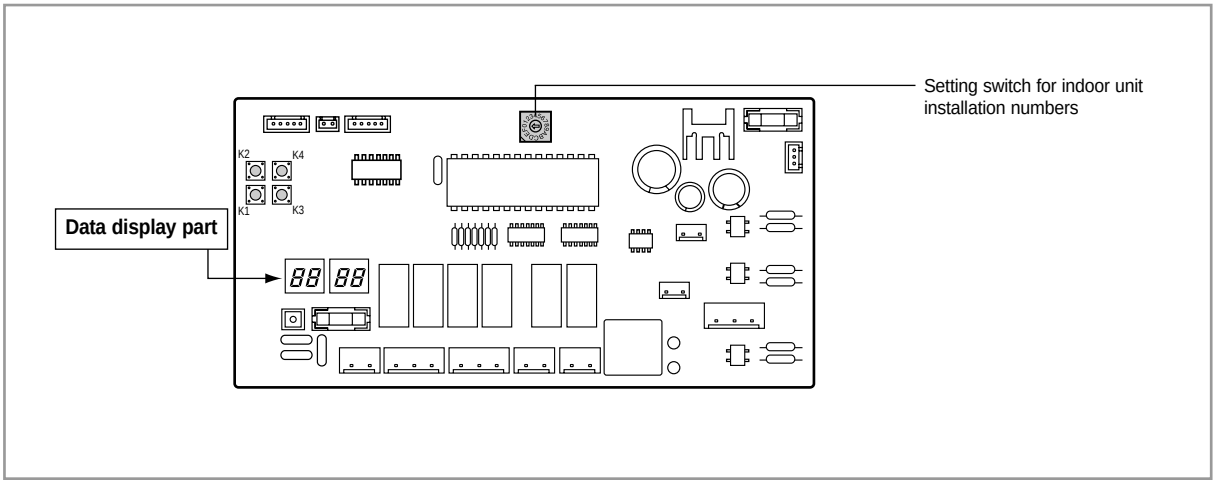
• Right numeral marks address that is answered.

• During the tracking, left calls indoor unit through
0 - 1 - 2 - 3 ... - d - E - F and checks. At this time connected indoor unit set on " 0 " and the indoor unit set 0 address marked on right.
Right side mark is marked by when left side is 0.
(If SW02(MAIN) that set indoor unit address is controlled to " 0 ", indoor unit number marked on outdoor unit is marked by " 0 ".)



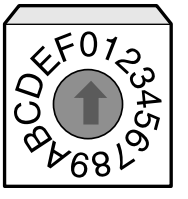
DISPLAY PART (DS1)

5-1-2 Option set part for Outdoor unit PCB



Setting switch for indoor unit installation numbers

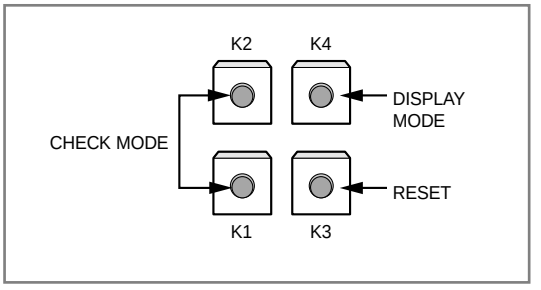
Counts of Indoor Unit Installation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Numbers of the switch	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F



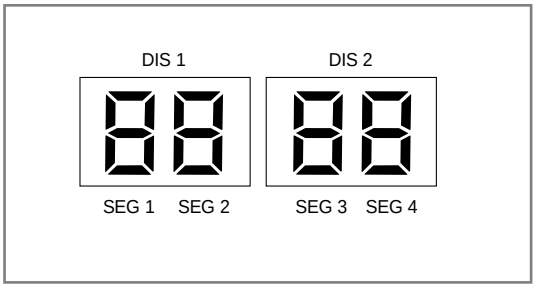
● Example : When the installed indoor unit is one, control the arrow of switch forward to '0' or '1' as figure.

5-1-3 Setting Up Option Switches

■ **KEY**



■ **Dispaly**



■ **Summary of KEY functions**

Function / Number of press times	K1 (Displayed on SEG 3, 4)	K2 (Displayed on SEG 3, 4)	K3 (Displayed on SEG 3, 4)	K4 (Displayed on SEG 3, 4)
1	Adding refrigerant at heating mode	Adding refrigerant at cooling mode	Reset	Displays data
2	Test operation at heating mode	Test operation at cooling mode	-	-
3	End	Pump Down for recovery of refrigerant	-	-
4	-	End	-	-

※ Use the K1 only for heat pump models.

5-1-4 Wired remote controller display specification at error occurring

■ If an error occurs, TEST is displayed on the wired remote controller.
If you would like to see an error code, press the Test button.

Display	Description	Remarks
416	Compressor down due to protection control of the discharge temperature sensor	Error about protection control of the outdoor unit
450	Control due to the condenser temperature sensor when cooling mode	
451	Error of the low pressure switch (Protection control)	
425	Reverse phase error (Protection control)	
551	In removing frost	
221	Error of the outdoor temperature sensor (Open/Short)	Error about the outdoor unit sensor (Open/Short) Detection during the operation of the indoor unit (sensing and sending errors into the communication data)
230	Error of condensor temperature sensor (Open/Short)	
251	Error of discharge temperature sensor (Open/Short)	
201	- System down caused by communication error after completion of tracking - Mismatching of the indoor unit numbers set with those communication after completion of 5 times tracking	Communication and the indoor unit errors
121	Error of temperature sensor in the indoor unit (Open/Short)	Self-diagnosis of the indoor and outdoor unit
122	Error of the heat exchanger sensor in the indoor unit (Open/Short)	
419	Error of electronic expansion valve open in the outdoor unit (when it is detected more than once)	
422	Error of electronic expansion valve close in the outdoor unit (when it is detected more than once)	
601	Error of communication between the indoor unit and the wired remote controller	Wired remote controller errors
602	Master wired remote controller ↔ Slave wired remote controller	
606	COM1/COM2 Cross-installed error	
EA	Error of setting option for wired remote controller COM2	

5-2 Troubleshooting

When error occurs in air conditioner, error code is displayed on indoor unit display lamp and outdoor unit.

5-2-1 Indoor unit LED error diagnosis

■ Error detection and reoperation

- If error occurs during the operation, badness is indicated by LED flickering and all operation is stopped except LED.
- When reoperating by remote controller and switch determine the error mode after normal operation.

■ Indoor unit LED lamp display at error detecting

Error mode	LED lamp						Remark
	Auto						
Power Reset	×	◑	×	×	×	×	
Error of the indoor unit sensor	×	×	◑	×	×	×	Applied indoor unit error display (Indoor unit display only during the operation)
Error of the indoor unit pipe sensor	×	◑	◑	×	×	×	Applied indoor unit error display (Indoor unit display only during the operation)
Error of the outdoor unit pipe sensor	×	◑	×	◑	×	×	The whole indoor unit error display Outdoor unit separated Display (Indoor unit display only during the operation)
Communication error (Transmitter, wired remote control)	×	×	◑	◑	×	×	Indoor unit door (Display is unrelated with operation)
Communication error between indoor units	×	◑	×	×	◑	×	Indoor unit display
Freeze prevention control (Errors occur during 6th detection)	×	×	◑	◑	◑	×	
Error of peripherals option set-up	×	×	◑	×	◑	×	
EEPROM ERROR	×	◑	◑	◑	×	×	
EEPROM OPTION ERROR	◑	◑	◑	◑	◑	◑	

◑ : Flickering × : Off

5-2-2 Outdoor unit display specification at error occurring

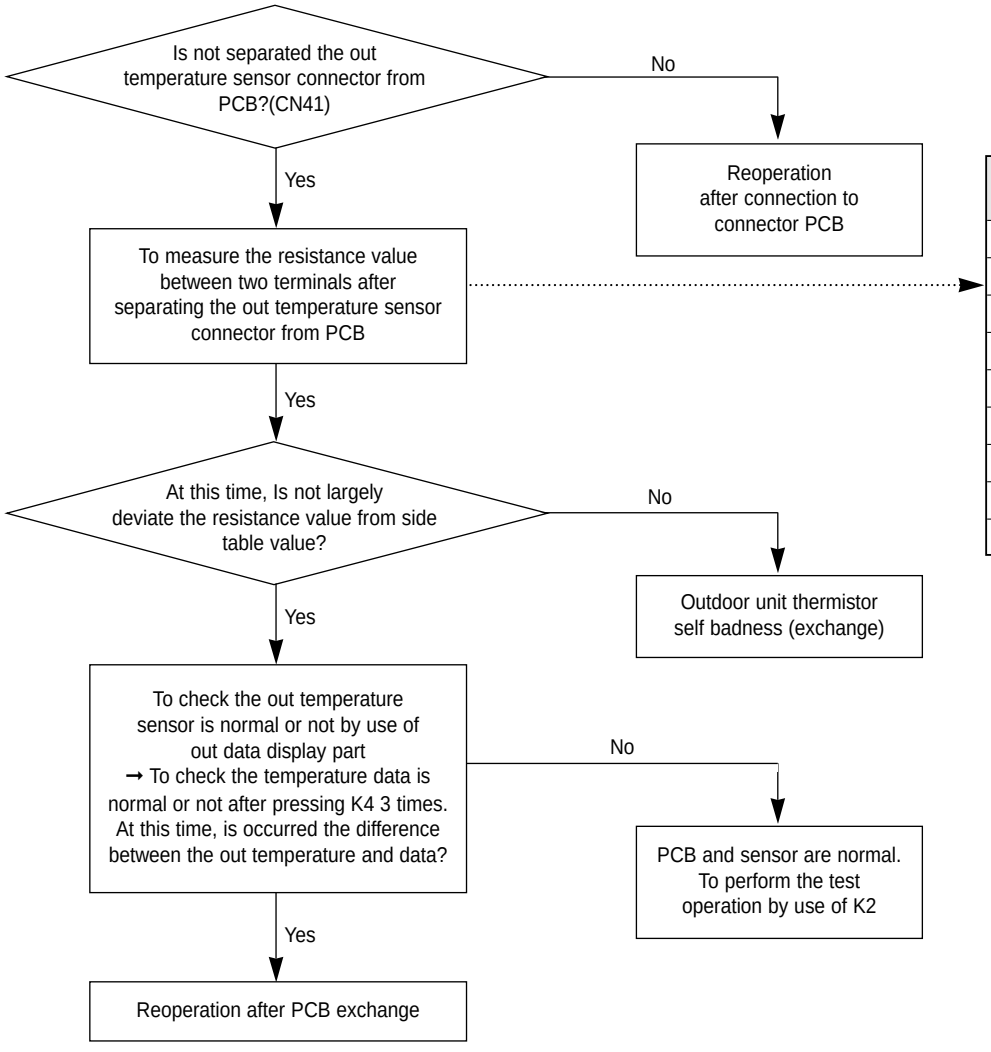
No	Display		Description	Remarks
	DIS1	DIS2		
1	Er ↔ P0	OFF	High discharge temperature(Protection control)	Outdoor protection control related error
2	Er ↔ P1	OFF	High condensor temperature(Protection control)	
3	Er ↔ P4	OFF	Reverse phase detection error (Protection control)	
4	Er ↔ P5	OFF	Compressor stop due to frozen evaporator of indoor unit (every times)	
5	Er ↔ P6	OFF	Error of momentary power failure(Disappears when the unit is Off/On)	
6	Er ↔ P9	OFF	During the defrosting operation (Heat pump model only)	
7	Er ↔ E1	OFF	Outdoor temperature SENSOR ERROR (OPEN/SHORT)	Outdoor sensor related error 1 - The whole outdoor unit sensor error detection should be done during the indoor unit operation only.(But ,transferring to communication data by sensing is allowed at any time.)
8	Er ↔ E2	OFF	Condensor temperature SENSOR ERROR (OPEN/SHORT)	
9	Er ↔ E3	OFF	Discharge temperature SENSOR ERROR (OPEN/SHORT)	
10	Er ↔ E1	OFF	After tracking completion, system down due to communication error	Communication and indoor unit error related
11	Er ↔ E2	OFF	To mismatch the indoor unit number communicated with setting indoor unit after 5 times tracking completion	
12	Er ↔ E3	OFF	Floating switch error from indoor unit	
13	Er ↔ 90	OFF	Indoor unit room temperature sensor open/short error	Indoor/Outdoor unit self diagnosis related
14	Er ↔ r1	OFF	Indoor unit evaporator temperature sensor open/short error	
15	Er ↔ C4	OFF	Outdoor unit electronic valve opening error (Detecting over 1 time)	
16	Er ↔ C5	OFF	Outdoor unit electronic valve closing error (Detecting over I time)	
17	tU or to flickering	OFF	tU (below -5˚C at cooling), to (over 30˚C at heating)	Operation status display

Display priority order at overlapping error : E1→E4→P0→P1→P5→P6→t1→t2→t3→tu→to→G4→G5→E3→qx→rx→K1, 2, 3, 4, 5
- If several indoor unit report the same error, the fast address is priority.

5-3 Sequence for trouble diagnosis

5-3-1 Outdoor temperature sensor(OPEN/SHORT)

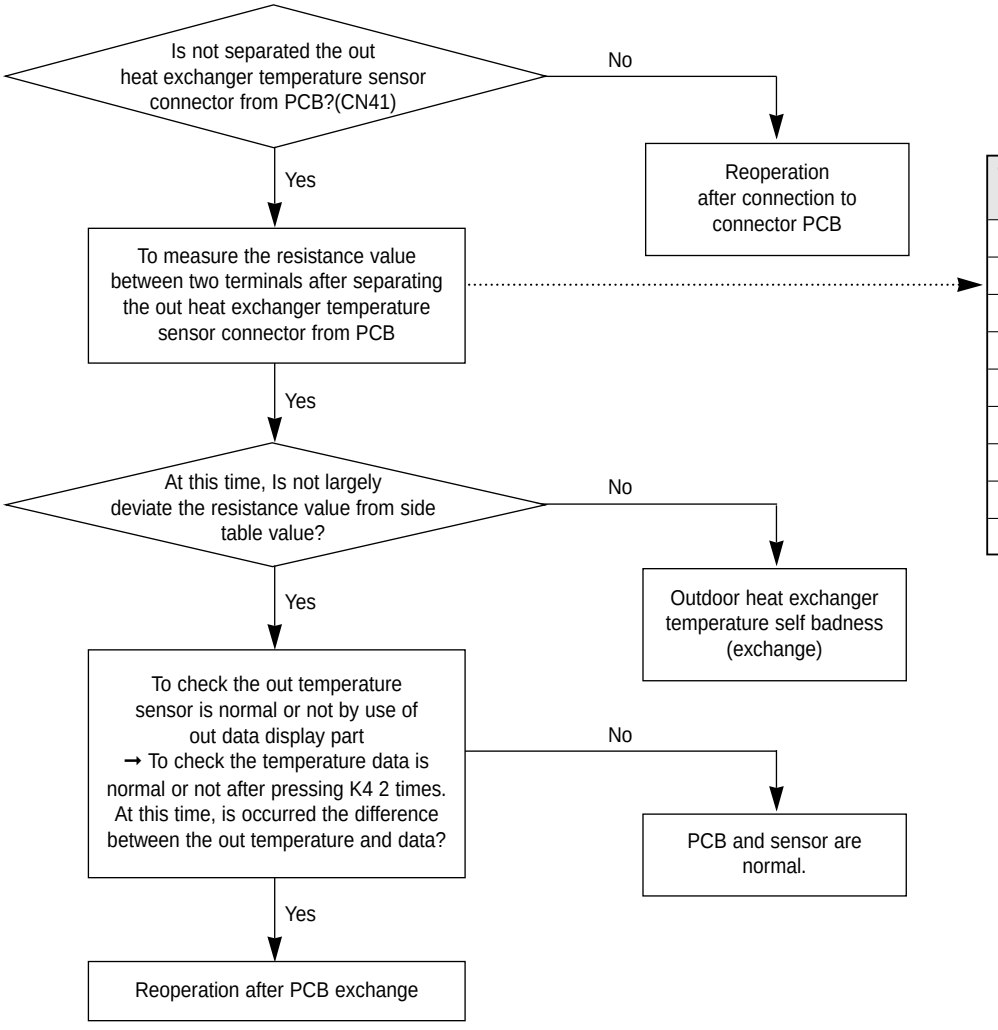
Outdoor unit display	**Er → t1 (Outdoor temperature sensor OPEN/SHORT error)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) ◑ (Filter)
How to determine	Disconnection and short of outdoor temperature sensor
Reason of error	Disconnection or leak of applied sensor


Is not separated the out temperature sensor connector from PCB?(CN41)
No
Reoperation after connection to connector PCB
Yes
To measure the resistance value between two terminals after separating the out temperature sensor connector from PCB
Yes
At this time, Is not largely deviate the resistance value from side table value?
No
Outdoor unit thermistor self badness (exchange)
Yes
To check the out temperature sensor is normal or not by use of out data display part → To check the temperature data is normal or not after pressing K4 3 times. At this time, is occurred the difference between the out temperature and data?
No
PCB and sensor are normal. To perform the test operation by use of K2
Yes
Reoperation after PCB exchange

Temperature (˚C)	Resistance (kΩ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0

5-3-2 Outdoor heat exchanger temperature sensor error(OPEN/SHORT)

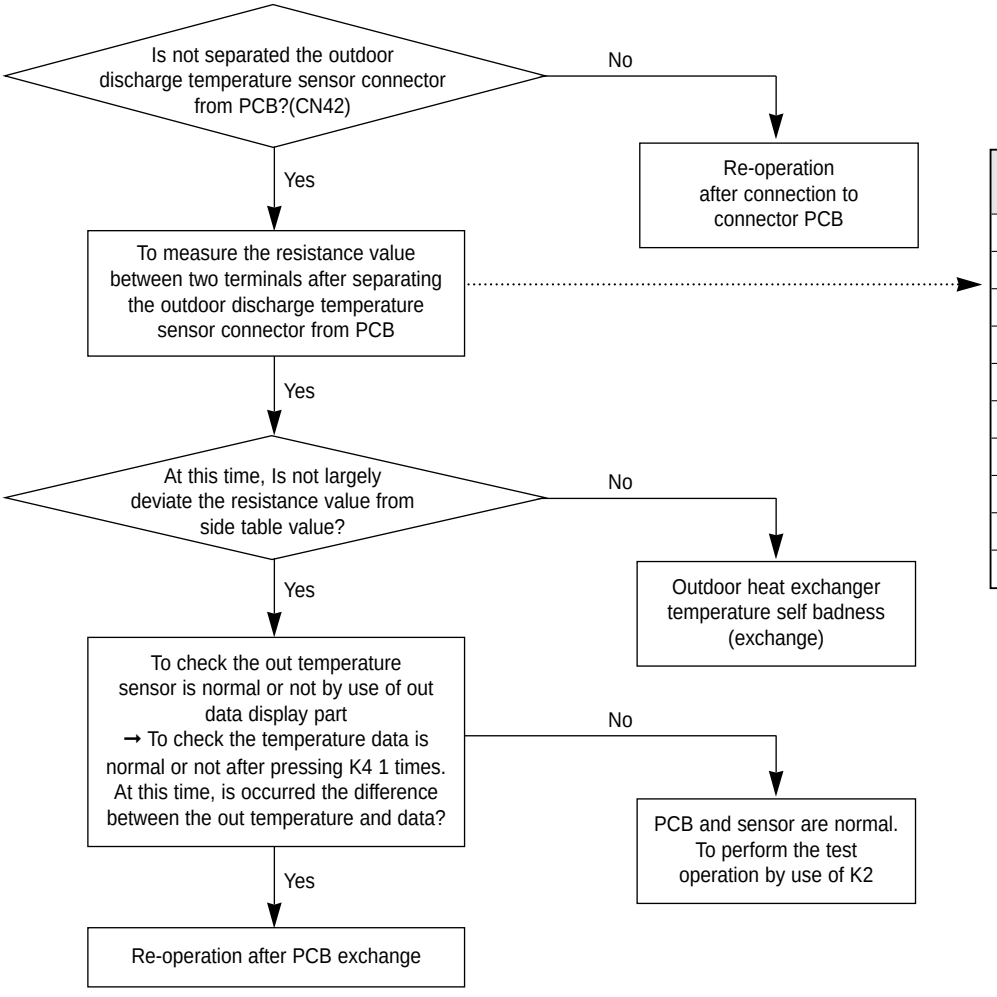
Outdoor unit display	**Er → t2 (Outdoor heat exchanger temperature sensor error(OPEN/SHORT)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) ◑ (Filter)
How to determine	Disconnection and short of outdoor heat exchanger temperature sensor
Reason of error	Disconnection or leak of Applied sensor


Is not separated the out heat exchanger temperature sensor connector from PCB?(CN41)
No
Reoperation after connection to connector PCB
Yes
To measure the resistance value between two terminals after separating the out heat exchanger temperature sensor connector from PCB
Yes
At this time, Is not largely deviate the resistance value from side table value?
No
Outdoor heat exchanger temperature self badness (exchange)
Yes
To check the out temperature sensor is normal or not by use of out data display part
→ To check the temperature data is normal or not after pressing K4 2 times. At this time, is occurred the difference between the out temperature and data?
No
PCB and sensor are normal.
Yes
Reoperation after PCB exchange

Temperature (˚C)	Resistance (kΩ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0

5-3-3 Outdoor discharge temperature sensor error(OPEN/SHORT)

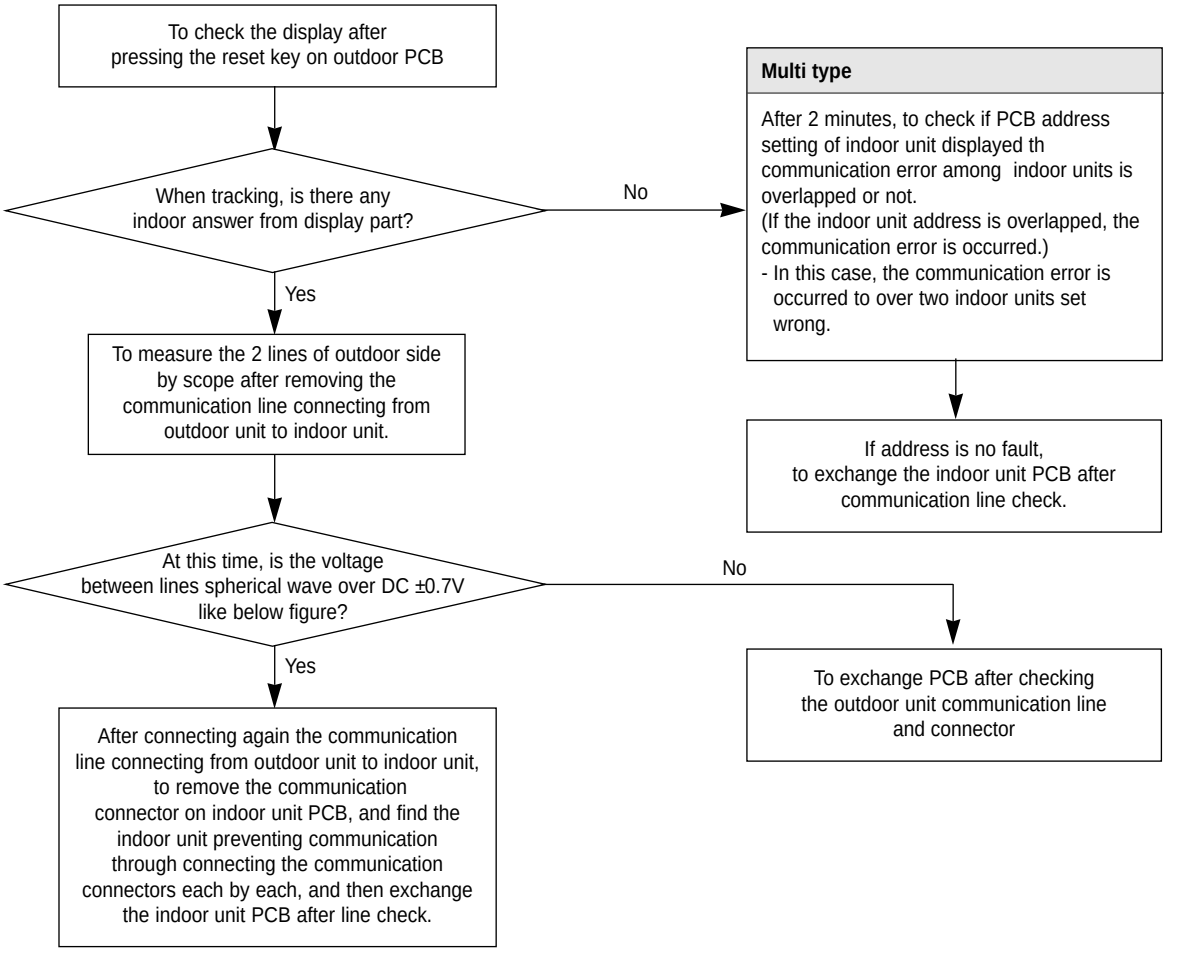
Outdoor unit display	**Er → t3 (Outdoor discharge temperature sensor OPEN/SHORT error)**
Indoor unit display	◑ (Operation) × (Timer) ◑ (Airflow) × (Filter)
How to determine	Disconnection and short of outdoor heat exchanger temperature sensor
Reason of error	Disconnection or leak of Applied sensor

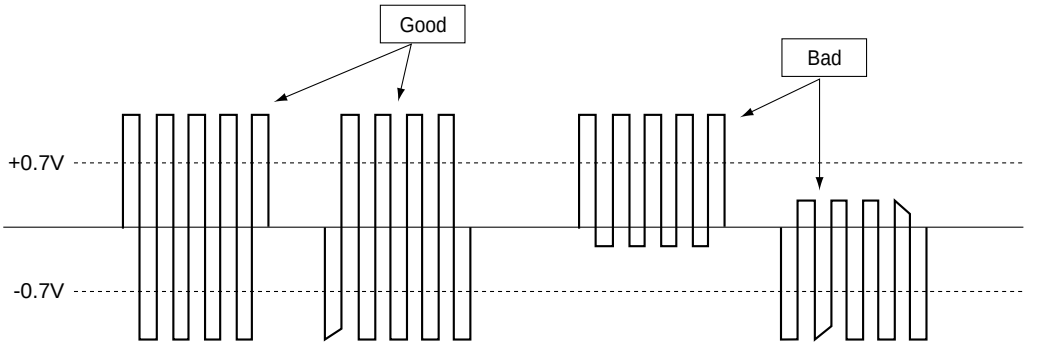

Is not separated the outdoor discharge temperature sensor connector from PCB?(CN42)
No
Re-operation after connection to connector PCB
Yes
To measure the resistance value between two terminals after separating the outdoor discharge temperature sensor connector from PCB
Yes
At this time, Is not largely deviate the resistance value from side table value?
No
Outdoor heat exchanger temperature self badness (exchange)
Yes
To check the out temperature sensor is normal or not by use of out data display part
→ To check the temperature data is normal or not after pressing K4 1 times. At this time, is occurred the difference between the out temperature and data?
No
PCB and sensor are normal. To perform the test operation by use of K2
Yes
Re-operation after PCB exchange

Temperature (˚C)	Resistance (kΩ)
130	8.9
120	11.2
100	18.5
80	32
60	59
25	200
20	242
10	362
0	553
-10	

5-3-4 Communication error during the operation

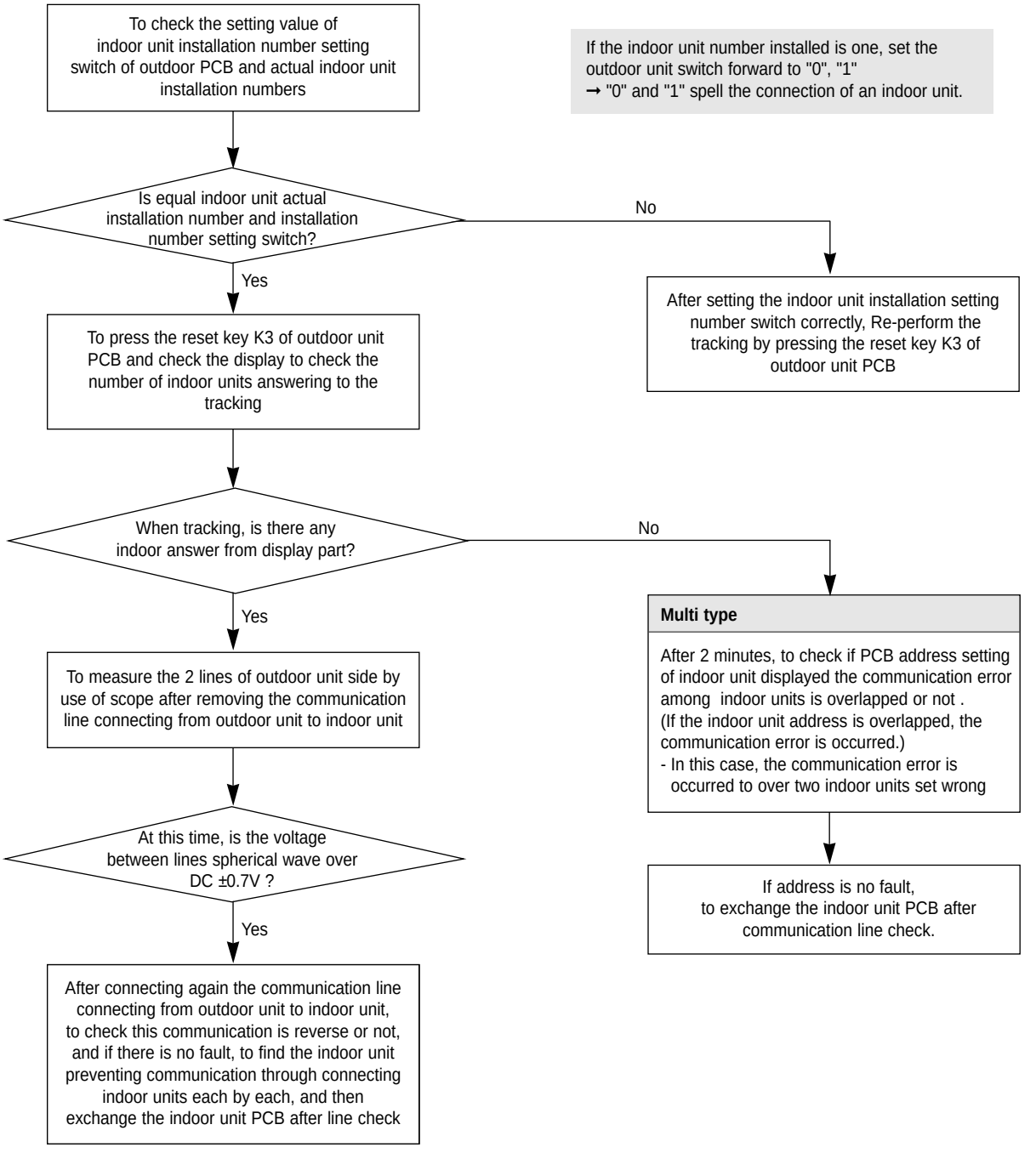
Outdoor unit display	**Er → E1 (Communication error during the operation)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) ◑ (Filter)
Disconnection and short of communication lines	Disconnection and short of outdoor heat exchanger temperature sensor
Reason of error	Disconnection or leak of Applied sensor


To check the display after pressing the reset key on outdoor PCB
When tracking, is there any indoor answer from display part?
No
Yes
Multi type
After 2 minutes, to check if PCB address setting of indoor unit displayed th communication error among indoor units is overlapped or not.
(If the indoor unit address is overlapped, the communication error is occurred.)
- In this case, the communication error is occurred to over two indoor units set wrong.
If address is no fault, to exchange the indoor unit PCB after communication line check.
To measure the 2 lines of outdoor side by scope after removing the communication line connecting from outdoor unit to indoor unit.
At this time, is the voltage between lines spherical wave over DC ±0.7V like below figure?
No
Yes
To exchange PCB after checking the outdoor unit communication line and connector
After connecting again the communication line connecting from outdoor unit to indoor unit, to remove the communication connector on indoor unit PCB, and find the indoor unit preventing communication through connecting the communication connectors each by each, and then exchange the indoor unit PCB after line check.



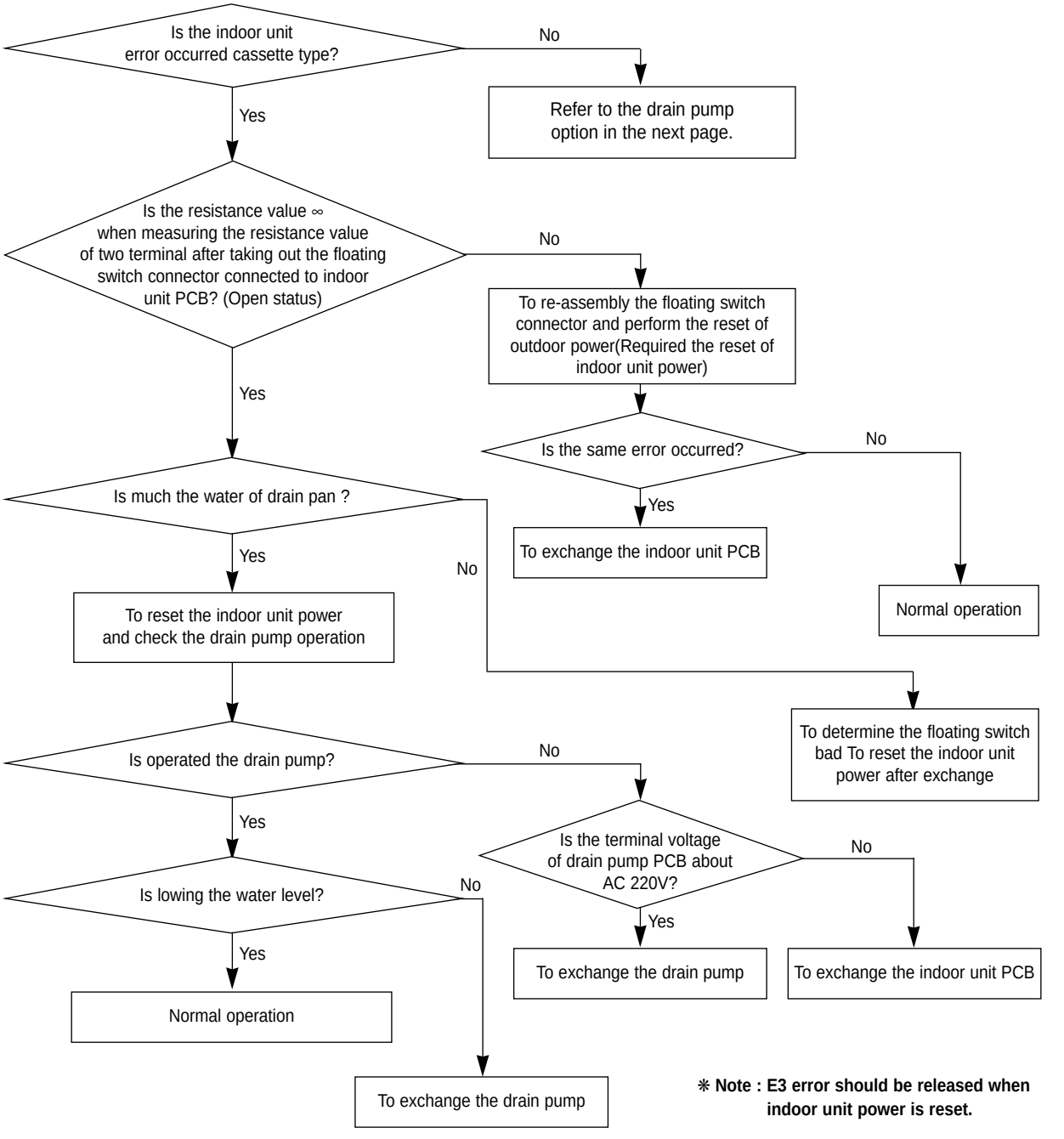
5-3-5 Communication error between indoor and outdoor after initial power input.

Outdoor unit display	**Er → E2 (Tracking error)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) × (Filter)
How to determine	Mismatching the communicating indoor unit and setting switch indoor numbers When outdoor tracking
Reason of error	Communication error between the indoor unit and outdoor unit, and installation number switch setting miss


To check the setting value of indoor unit installation number setting switch of outdoor PCB and actual indoor unit installation numbers
If the indoor unit number installed is one, set the outdoor unit switch forward to "0", "1"
→ "0" and "1" spell the connection of an indoor unit.
Is equal indoor unit actual installation number and installation number setting switch?
No
Yes
After setting the indoor unit installation setting number switch correctly, Re-perform the tracking by pressing the reset key K3 of outdoor unit PCB
To press the reset key K3 of outdoor unit PCB and check the display to check the number of indoor units answering to the tracking
When tracking, is there any indoor answer from display part?
No
Yes
Multi type
After 2 minutes, to check if PCB address setting of indoor unit displayed the communication error among indoor units is overlapped or not .
(If the indoor unit address is overlapped, the communication error is occurred.)
- In this case, the communication error is occurred to over two indoor units set wrong
To measure the 2 lines of outdoor unit side by use of scope after removing the communication line connecting from outdoor unit to indoor unit
At this time, is the voltage between lines spherical wave over DC ±0.7V ?
Yes
If address is no fault, to exchange the indoor unit PCB after communication line check.
Yes
After connecting again the communication line connecting from outdoor unit to indoor unit, to check this communication is reverse or not, and if there is no fault, to find the indoor unit preventing communication through connecting indoor units each by each, and then exchange the indoor unit PCB after line check

5-3-6 Indoor floating switching error

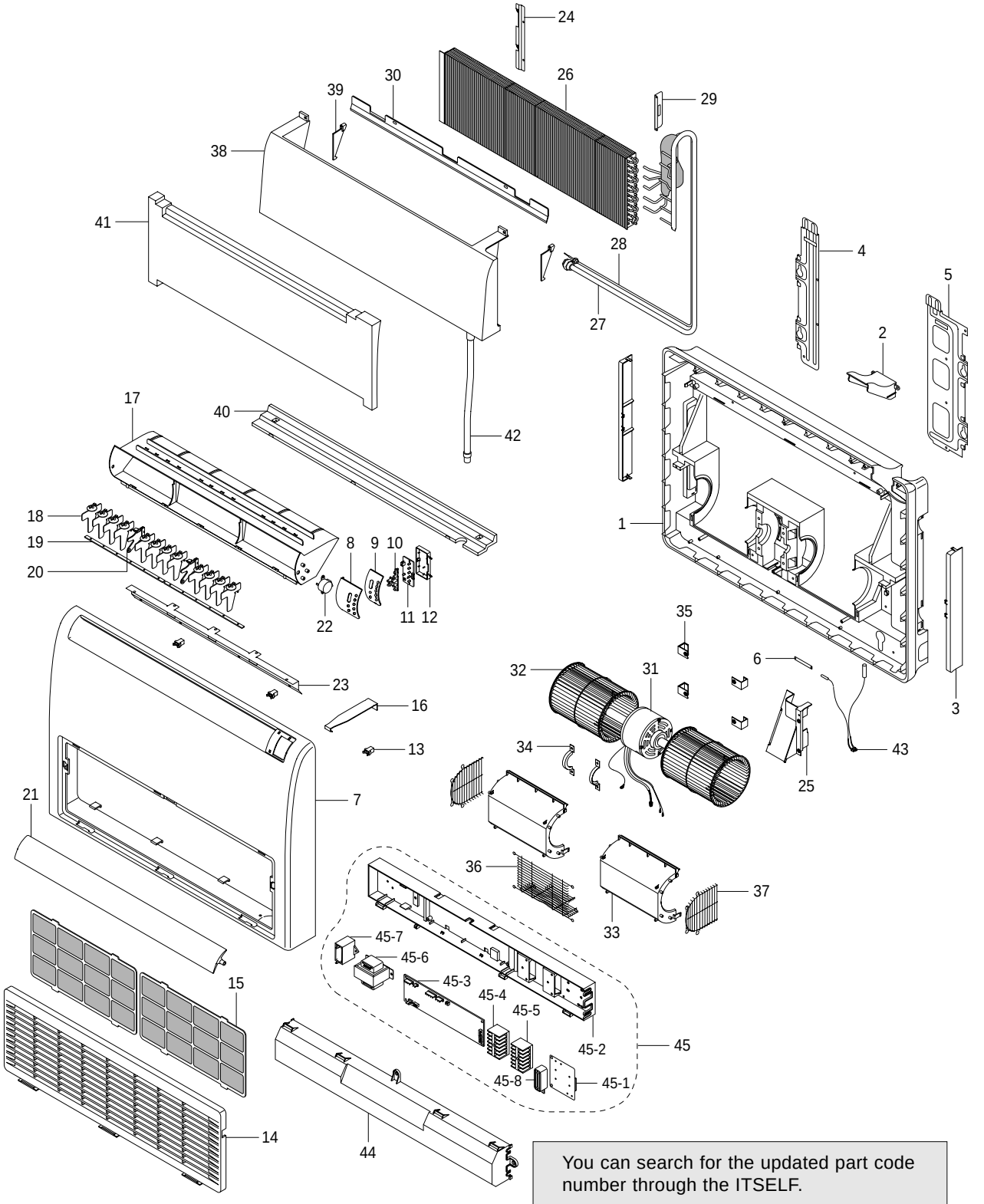
Outdoor unit display	**Er → E3 (Indoor floating switching error)**
Indoor unit display	× (Operation) × (Timer) ◑ (Airflow) ◑ (Filter)
How to determine	The status continues over 1 minute that indoor unit floating switch is opened.
Reason of error	The rising of water level of drain pan due to the disorder of indoor unit drain pump, the badness of detection sensor


Is the indoor unit error occurred cassette type?
No
Refer to the drain pump option in the next page.
Yes
Is the resistance value ∞ when measuring the resistance value of two terminal after taking out the floating switch connector connected to indoor unit PCB? (Open status)
No
To re-assembly the floating switch connector and perform the reset of outdoor power(Required the reset of indoor unit power)
Yes
Is the same error occurred?
No
Yes
To exchange the indoor unit PCB
Normal operation
Is much the water of drain pan ?
Yes
No
To reset the indoor unit power and check the drain pump operation
To determine the floating switch bad To reset the indoor unit power after exchange
Is operated the drain pump?
No
Yes
Is the terminal voltage of drain pump PCB about AC 220V?
No
Yes
Is lowing the water level?
No
Yes
To exchange the drain pump
To exchange the indoor unit PCB
Normal operation
To exchange the drain pump

✻ Note : E3 error should be released when indoor unit power is reset.

6. Exploded Views and Parts List

6-1 Indoor Unit



You can search for the updated part code number through the ITSELF.

URL : http://itself.sec.samsung.co.kr

■ **Parts List**

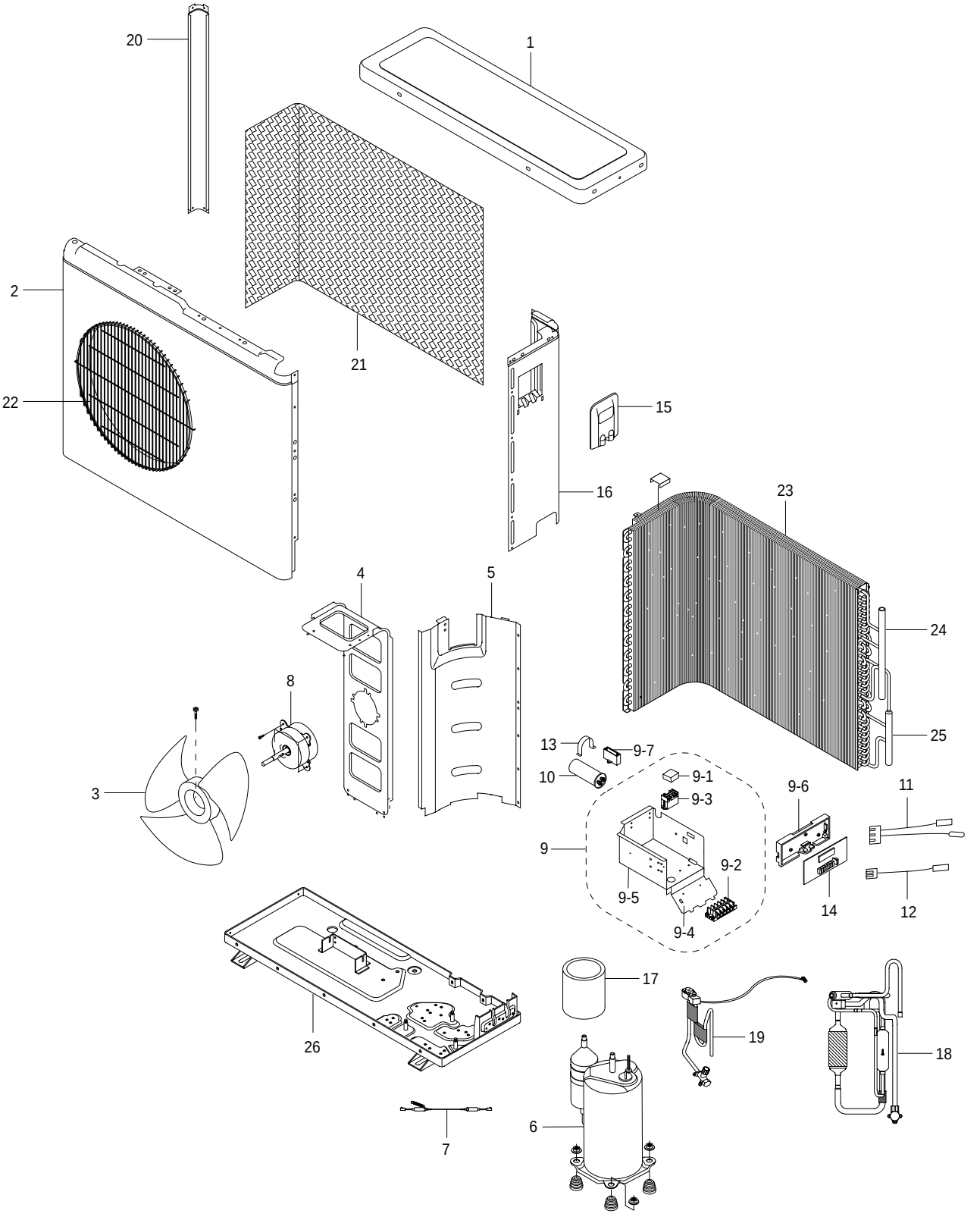
No.	Code No.	Description	Specification	Q'TY	
				FH052EAMT	FH070EAMT
1	DB64-00682A	CABI BASE	ABS	1	1
2	DB63-00601A	COVER PIPE	ABS	1	1
3	DB63-00602A	COVER SIDE	ABS	2	2
4	DB61-01149A	PLATE HANGER LF	SGCC-M	1	1
5	DB61-01150A	PLATE HANGER RH	SGCC-M	1	1
6	DB61-01155A	BRACKET COVER PIPE	SGCC-M	1	1
7	DB64-00683A	CABI FRONT	ABS(SILK PRINT)	1	1
8	DB63-00606C	COVER DISPLAY A	ABS(SILK PRINT)	1	1
9	DB63-00607A	COVER DISPLAY B	PC	1	1
10	DB63-00604A	COVER LED	ABS	1	1
11	DB93-01476B	DISPLAY PCB IN	PCB	1	1
12	DB61-01159A	CASE DISPLAY PCB	ABS	1	1
13	DB66-00451A	LATCH PUSH	ASS'Y	3	3
14	DB64-00684A	INLET GRILLE	ABS	1	1
15	DB63-00610A	FILTER AIR	PP	2	2
16	DB61-01153A	PLATE HANGER FRONT	SGCC-M	1	1
17	DB61-01156A	BRACKET OUTLET	ABS	1	1
18	DB31-00158A	BLADE V	ABS	12	12
19	DB31-00159A	BLADE CONNECTOR V	ABS	2	2
20	DB31-00164A	BLADE CONNECTOR H	ABS	2	2
21	DB31-00157A	BLADE H	ABS	1	1
22	DB31-10153D	SWING MOTOR IN	ASS'Y	1	1
23	DB61-01352A	BRACKET DRAIN	SGCC-M	1	1
24	DB67-00258A	DRAIN SUB LF	SGCC-M	1	1
25	DB67-00259A	DRAIN SUB RH	ABS	1	1
26	DB75-00221B	EVAPORATOR	ASS'Y	1	1
27	DB96-02171A	ASS'Y COLLECTOR	ASS'Y	-	1
	DB96-02250A	ASS'Y COLLECTOR	ASS'Y	1	-
28	DB96-02170A	ASS'Y INLET	ASS'Y	1	1
29	DB61-01157A	BRACKET EVAP	SGCC-M	1	1
30	DB63-00624A	COVER EVAP	ABS	1	1
31	DB31-00179A	MOTOR FAN	ASS'Y(OSME-254SAC)	1	1
32	DB67-00260A	BLOWER	ABS	2	2
33	DB61-01160A	CASE FAN UP	ABS	2	2
34	DB63-00611A	COVER MOTOR	SGCC-M	2	2
35	DB61-01162A	HOLDER MOTOR	SGCC-M	4	4
36	DB63-00738A	GUARD SAFETY	HSWR	1	1
37	DB63-00739A	GUARD FAN	HSWR	2	2
38	DB67-00257A	DRAIN PAN	ABS	1	1
39	DB67-00275A	DRAIN PARTITION	ABS	2	2
40	DB69-00617A	CUSHION DRAIN A	EPS(25FOAM-PS)	1	1
41	DB69-00714A	CUSHION DRAIN B	EPS(25FOAM-PS)	1	1

■ **Parts List(cont.)**

No.	Code No.	Description	Specification	Q'TY	
				FH052EAMT	FH070EAMT
42	DB94-00062B	ASS'Y DRAIN HOSE	ASS'Y	1	1
43	DB32-00082A	THERMISTOR EVAP	ASS'Y	1	1
44	DB63-00605A	COVER CONTROL	ABS(UL94-V0)	1	1
45	DB93-02409A	ASS'Y CONTROL IN	ASS'Y	-	1
	DB93-02409B	ASS'Y CONTROL IN	ASS'Y	1	-
45-1	DB61-01154A	BASE CONTROL	SGCC-M	1	1
45-2	DB61-01220A	CASE PCB MAIN	ABS(UL94-V0)	1	1
45-3	DB93-02268A	CEILING EU,PCB ASSY	PCB	1	1
45-4	DB65-00105G	TERMINAL BLOCK 6P	DAF-S6P	1	1
45-5	DB65-00004R	TERMINAL BLOCK 4P	DAF-S4P	1	1
45-6	DB26-10065B	TRANS POWER	ASSY	1	1
45-7	2301-001368	CAPACITOR	5uF 450VAC	-	1
	2301-001369	CAPACITOR	3uF 450VAC	1	-
45-8	DB61-00250A	CLAMP WIRE	NYLON	2	2

MEMO

6-2 Outdoor Unit



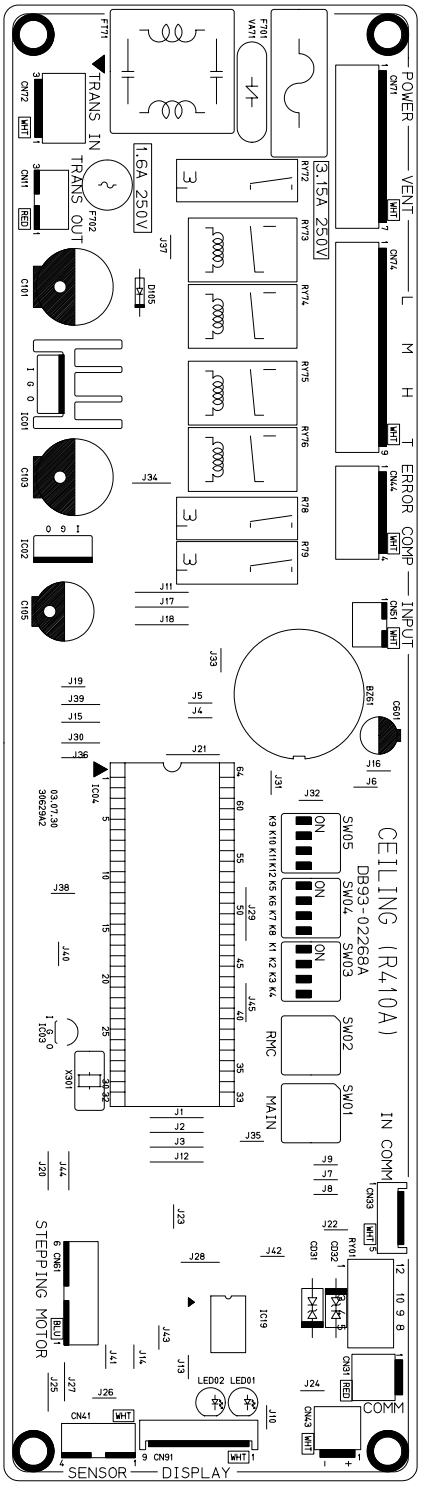
■ **Parts List**

No.	Code No.	Description	Specification	Q'TY	
				UH052EAMT	UH070EAMT
1	DB90-01363A	ASS'Y-COVER TOP	ASS'Y	1	1
2	DB90-01293A	ASS'Y CABI-FRONT	ASS'Y,LOGO	1	1
3	DB67-00140A	FAN-PROPELLER	AS+GF20%,OD460,3BLADE	1	1
4	DB61-01167A	BRACKET-MOTOR	SGCC-M,T1.6	1	1
5	DB67-00261A	PARTITION	SGCC-M,T0.8	1	1
6	DB95-00454A	ASS'Y COMP	SIAM,NN29VACMT	-	1
	DB95-00455A	ASS'Y COMP	SIAM,NN21VBAMT	1	-
7	DB95-30013T	ASS'Y HEATER COMP	40W	1	1
8	DB31-00216A	MOTOR-FAN	OSEM-886SRC(S509)	-	1
	DB31-00027G	MOTOR-FAN	OSEM-906SRC(S507)	1	-
9	DB93-02410A	ASS'Y CONTROL OUT	ASS'Y	-	1
	DB93-02410B	ASS'Y CONTROL OUT	ASS'Y	1	-
9-1	DB26-10070A	TRANS-POWER	AC230V,DC17V	1	1
9-2	DB65-00112A	TERMINAL BLOCK-6P	35A 4P,25A 2P	1	1
9-3	3501-001204	MAGNETIC-SWITCH	MUF20CF,2A	1	1
9-4	DB61-30625A	BRACKET-TERMINAL	SGCC-M	1	1
9-5	DB93-40264B	ASS'Y CONTROL BOX OUT	ASHT-1805ER	1	1
9-6	DB61-00152A	CASE-PCB-OUT	T2.5,ABS,BLK	1	1
9-7	2301-001369	CAPACITOR-FAN	3uF/450VAC	1	1
10	2501-001236	CAPACITOR-COMP	30uF/450VAC	-	1
	2501-001235	CAPACITOR-COMP	25uF/450VAC	-	1
	2501-001240	CAPACITOR-COMP	50uF/450VAC	1	-
11	DB32-00021F	THERMISTOR	AWG22,L470,L550	1	1
12	DB32-00071C	THERMISTOR	AWG22,L600	1	1
13	DB61-01685A	BAND-CAPACITOR	SGCC-M	-	1
	DB69-60008A	BAND-CAPACITOR	SGCC-M	1	-
14	DB93-00185D	ASS'Y PCB MAIN-OUT	CEILING OUTDOOR PCB	1	-
	DB93-00185E	ASS'Y PCB MAIN-OUT	CEILING OUTDOOR PCB	-	1
15	DB63-10490A	COVER-CONTROL	ABS,SC-900073R	1	1
16	DB90-01292B	CABINET-SIDE RH	SECC-P,T0.8	1	1
17	DB62-01471A	INSU-CLOTH COMP	UH070EAMT	-	1
	DB62-02295A	INSU-CLOTH COMP	UH052EAMT	1	-
18	DB96-02876A	ASS'Y 4WAY VALVE	ASS'Y	-	1
	DB96-02877A	ASS'Y 4WAY VALVE	ASS'Y	1	-
19	DB96-02896A	ASS'Y EEV VALVE	ASS'Y	-	1
	DB96-02896B	ASS'Y EEV VALVE	ASS'Y	1	-
20	DB63-00613A	GUARD-COND	SECC-P,T1.6	1	1
21	DB61-01221A	GUIDE-SCREEN	P.E.H 100%,T2.5,1015x615,BLK	1	1
22	DB63-00320A	GUARD-FAN	HSWR,460	1	1
23	DB75-00251A	COND	UH070EAMT,UH052EAMT	1	1
24	DB96-02936A	ASS'Y COLLECTOR IN	ASS'Y	1	1
25	DB96-02937A	ASS'Y COLLECTOR OUT	ASS'Y	1	1
26	DB90-01291A	ASS'Y BASE OUT	ASS'Y	1	1

7. PCB Diagram

7-1 Indoor Unit (Code No : DB93-02268A)

■ TOP



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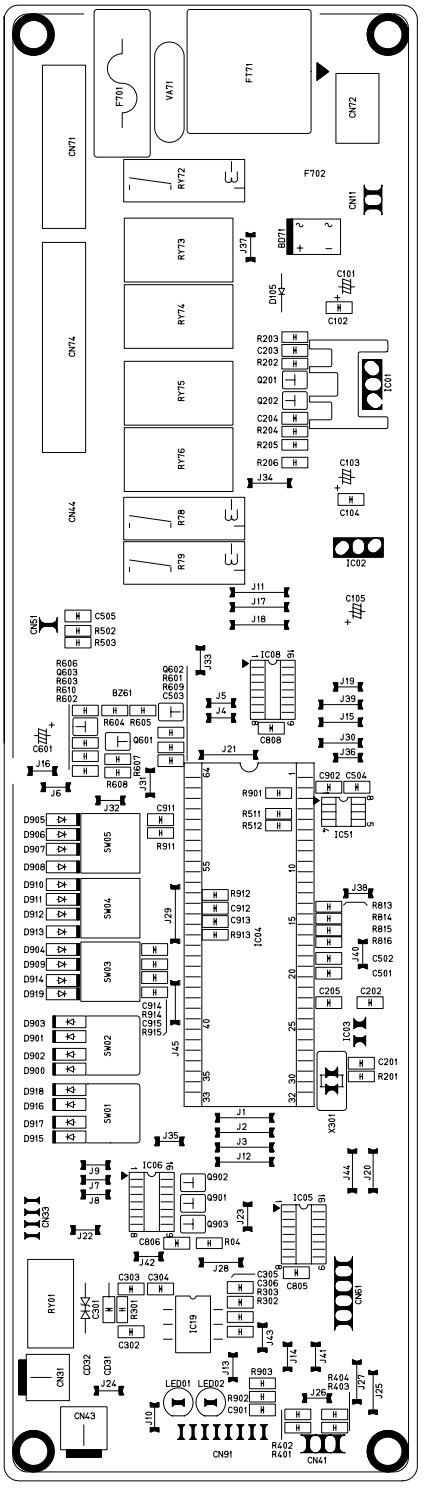


■ Parts List

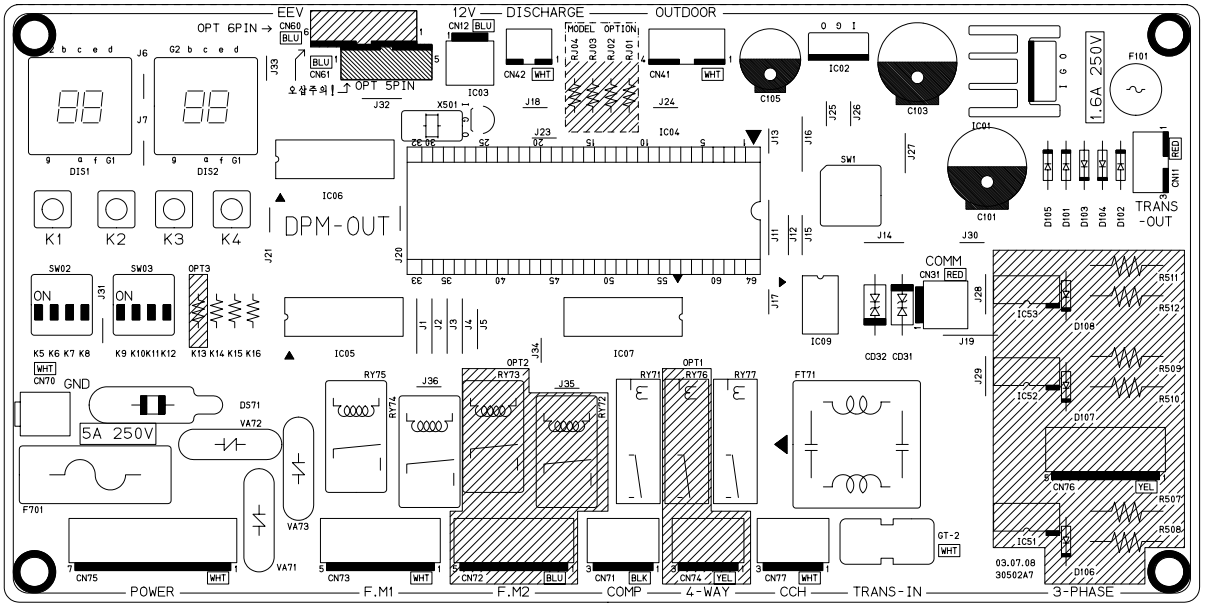
Location No.	Description	Specification	Q'TY
D904,D909,D914,D919	DIODE-SWITCHING	1N4148,100V,200mA,DO-35,TP	4
D900~D903,D905~D913	DIODE-SWITCHING	RLS4148,100V,450mA,LL-34,TP	17
D915~D918			
D105	DIODE-RECTIFIER	1N4007,1000V,1A,DO-41,TP	1
BD71	DIODE-BRIDGE	DF06S,600V,1A,SMD-4,TP	1
CD31,CD32	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	2
Q201,Q202,Q601,Q602	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	4
Q603	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SOT-23,TP,100-	1
Q901~Q903	TR-DIGITAL	DTA114EKA,PNP,200MW,10K/10K,SOT-23,TP	3
IC05,IC06,IC08	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	3
LED02	LED	ROUND,YEL,5mm,585nm	1
LED01	LED	TR,LED,1PCS,130-260%	1
IC19	IC-BUS TRANSCEIVER	485,DIP,8P,300MIL,SINGLE,ST,PLASTIC	1
IC51	IC-EEPROM	93LC56,128x16Bit,SOP,8P,150MIL,-,2.5V,-	1
IC03	IC-VOLTAGE COMP.	7533,TO-92,3P,-,SINGLE,-,-,PLASTIC	1
IC01	IC-POSI.FIXED REG.	7812A,TO-220,3P,-,PLASTIC,11.5	1
IC02	IC-POSI.FIXED REG.	7805,TO-220,3P,-,PLASTIC,4.8/5	1
VA71	VARISTOR	560V,2500A,17.5x7.5mm,TP	1
R301	R-CHIP	120ohm,5%,1/10W,DA,TP,2012	1
R606,R203,R302,R303,R503	R-CHIP	560ohm,5%,1/10W,DA,TP,2012	14
R602,R608,R609,R903			
R911~R915			
R04,201,R204,R205,R206	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	13
R601,R603,R607			
R813~R816,R902			
R202,R610	R-CHIP	3.3Kohm,5%,1/10W,DA,TP,2012	2
R402,R404,R502,R901	R-CHIP	330ohm,5%,1/10W,DA,TP,2012	4
R604,R605	R-CHIP	470ohm,5%,1/10W,DA,TP,2012	2
R511,R512	R-CHIP	47Kohm,5%,1/10W,DA,TP,2012	2
R401,R403	R-CHIP	6.8Kohm,1%,1/10W,DA,TP,2012	2
C102,C104,C201~C203	C-CERAMIC,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	19
C302~C306,C501~C505			
C805~C806,C808,C902			
C901	C-CERAMIC,CHIP	1nF,10%,50V,X7R,TP,2012,-	1
C204,C205,C301,C911~C915	C-CERAMIC,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	8
C105	C-AL	470uF,20%,25V,GP,TP,10x12.5mm	1
C101,C103	C-AL	1000uF,20%,35V,GP,TP,13x25,5	2
C601	C-AL	47uF,20%,50V,GP,TP,6.3x11,2.5	1
X301	RESONATOR-CERAMIC	10MHz,0.5%,TP,10.0x5.0x8.0mm	1
FT71	FILTER-EMI AC LINE	250V,1A,-,220000PF,20.5x20.5x32	1

■ **Parts List(cont.)**

Location No.	Description	Specification	Q'TY
BZ61	BUZZER-PIEZO	85DB,12V,-,2.0KHZ,ST	1
SW03~SW05	SWITCH-DIP	5V DC,100mA,SLIDE,-	3
R78,R79,RY72	RELAY-MINIATURE	12VDC,200MW,3000MA,1FORMA,10MS,10M	3
RY73~RY76	RELAY-MINIATURE	12VDC,200MW,5000MA,1FORMA,10MS,5MS	4
RY01	RELAY-MINIATURE	12V,-,11.7MA,DPDT,4MS,4MS	1
	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1
F702	FUSE	250V,1.6A,TIME-LAG,PLASTIC,8.4x7.6mm	1
F701	FUSE-BLOCK	500V,-,100M	1
CN51	CONNECTOR-HEADER	BOX,2P,1R,2.5mm,STRAIGHT,SN,WHT	1
CN31	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1
CN43	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1
CN72	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,WH	1
CN71	CONNECTOR-HEADER	1WALL,7P,1R,3.96mm,STRAIGHT,SN	1
CN74	CONNECTOR-HEADER	1WALL,5P,1R,7.92mm,STRAIGHT,SN,WH	1
CN11	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1
CN41	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGHT,SN	1
CN61	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGHT,SN	1
CN44	CONNECTOR-HEADER	YW396-04V,WHT	1
CN33	CONNECTOR-HEADER	BOX,5P,1R,2mm,STRAIGHT,SN	1
CN91	CONNECTOR-HEADER	BOX,9P,1R,2mm,STRAIGHT,SN	1
IC04	IC MICOM	MB89538AP-101,MB89538AP-101,64P,+5V,10MHZ	1
SW01	SWITCH-DIGITAL	PT65 103,ROTARY DIP,-,DC24V MAX,0.4	1
SW02	SWITCH-DIGITAL	PT65 503,ROTARY DIP,-,DC24V MAX,0.4	1

7-2 Outdoor Unit (Code No:DB93-01855D;UH052EAMT/DB93-01855E;UH070EAMT)

■ TOP



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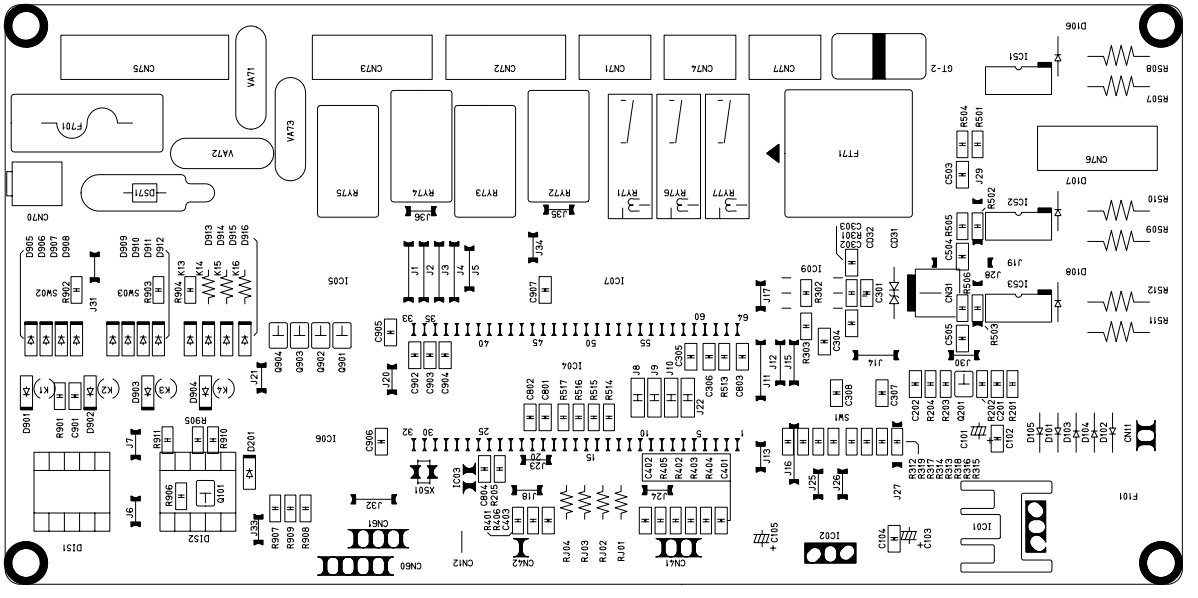


* The figure of PCB Pattern is common UH052EAMT and UH070EAMT.
Only part list is different from between UH052EAMT and UH070EAMT.

■ Parts List(UH052EAMT)

Location No.	Description	Specification	Q'TY
D201,D901~D916	DIODE-SWITCHING	RLS4148,100V,200MA,SOD-80C,TP	17
D101~D105	DIODE-RECTIFIER	1N4007,1000V,1A,DO-41,TP	5
CD31~CD32	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	2
Q201	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1
Q901~D904	TR-DIGITAL	DTA114EKA,PNP,200MW,10K/10K,SOT-23,TP	4
Q101	TR-DIGITAL	KSR1102,NPN,200MW,10K/10K,SOT-23,TP	1
IC05~IC07	IC-DARLINGTON DRIVER	KID65003AP,DIP,16PIN,300MIL,H	3
IC09	IC-BUS TRANSCEIVER	485,DIP,8P,300MIL,SINGLE,ST,PLASTIC	1
IC03	IC-VOLTAGE COMP.	7533,TO-92,3P,-,SINGLE,-,-,PLASTIC	1
IC01	IC-POSI.FIXED REG.	7812A,TO-220,3P,-,PLASTIC,11.5	1
IC02	IC-POSI.FIXED REG.	7805,TO-220,3P,-,PLASTIC,4.8/5	1
VA72,VA73	VARISTOR	470V,4500A,17x12mm,BK	2
VA71	VARISTOR	560V,2500A,17.5x7.5mm,TP	1
RJ03	R-CARBON	12Kohm,5%,1/4W,AA,TP,2.4x6.4mm	1
K13~K16,RJ01	R-CARBON	0ohm,5%,1/4W,AA,TP,2.4x6.4mm	5
R301	R-CHIP	120ohm,5%,1/8W,TP,2012	1
R201,R302,R303	R-CHIP	10Kohm,5%,1/8W,TP,2012	20
R312~319,R513~R517			
R901~R904			
R402,R403	R-CHIP	18Kohm,1%,1/8W,TP,2012	2
R203~R205,R905~R911	R-CHIP	1Kohm,5%,1/8W,TP,2012	10
R401	R-CHIP	24Kohm,1%,1/8W,TP,2012	1
R202	R-CHIP	3.3Kohm,5%,1/8W,TP,2012	1
R404~R406	R-CHIP	330ohm,5%,1/8W,TP,2012	3
C102,C104,C201	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	20
C302~C308,C401~C403			
C801~C804,C905~C907			
C202,C301,C901~C904	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	6
C105	C-AL	470uF,20%,25V,GP,TP,10x12.5mm	1
C101,C103	C-AL	1000uF,20%,35V,GP,TP,13x25,5	2
X501	RESONATOR-CERAMIC	10MHZ,0.5%,BK,8x3x5.5mm	1
FT71	FILTER-EMI AC LINE	250V,1A,UL/CSA/TUV/SEMKO,100000	1
K1~K4	SWITCH-PUSH	125V,1A,SPDT,ON-ON,-	4
SW02,SW03	SWITCH-DIP	5V DC,100mA,SLIDE,-	2
RY71~RY77	RELAY-MINIATURE	12VDC,200MW,3000MA,1FORMA,10MS,10M	7
F701_1	FUSE-CARTRIDGE	250V,5A,FAST-ACTING,GLASS,5.2x20mm	1
F101	FUSE	250V,1.6A,TIME-LAG,PLASTIC,8.4x7.6mm	1
F701	FUSE-BLOCK	500V,-,100M	1
CN42	CONNECTOR-HEADER	BOX,2P,1R,2.5mm,STRAIGHT,SN,WHT	1
CN12	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1

■ **Parts List(UH052EAMT)(cont.)**

Location No.	Description	Specification	Q'TY
CN31	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1
CN77	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,WH	1
CN72	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,BL	1
CN73	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,WH	1
CN75	CONNECTOR-HEADER	1WALL,4P,1R,7.92mm,STRAIGHT,SN,WH	1
CN70	CONNECTOR-HEADER	BOX,1P,1R,6mm,STRAIGHT,NI,WHT	1
CN11	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1
CN41	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGHT,SN	1
CN61	CONNECTOR-HEADER	BOX,5P,1R,2.5mm,STRAIGHT,SN	1
CN60	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGHT,SN	1
CN71	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,BL	1
CN74	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,YE	1
GT-2	CONNECTOR-TERMINAL	PIN,MALE,#18-22,2.35mm	1
RJ02	JUMPER	7.5	1
DIS1	LED DISPLAY-7SEG	ELD-306GWA,-,2,14,-,15*15.5*7.2,G	1
DIS2	LED DISPLAY-7SEG	ELD-306GWA,-,2,14,-,15*15.5*7.2,G	1
IC04	IC MICOM	MB89538AP-101,MB89538AP-101,64P,+5V,10MHz	1
SW1	SWITCH-DIGITAL	PT65 103,ROTARY DIP,-,DC24V MAX,0.4	1
DS71	POSISTOR	DSA-332MA,2pF MAX,100MOhm,ASM-3	1
RJ04	R-CARBON	3.3Kohm,5%,1/4W,AA,TP,2.4x6.4mm	1

■ Parts List(UH070EAMT)

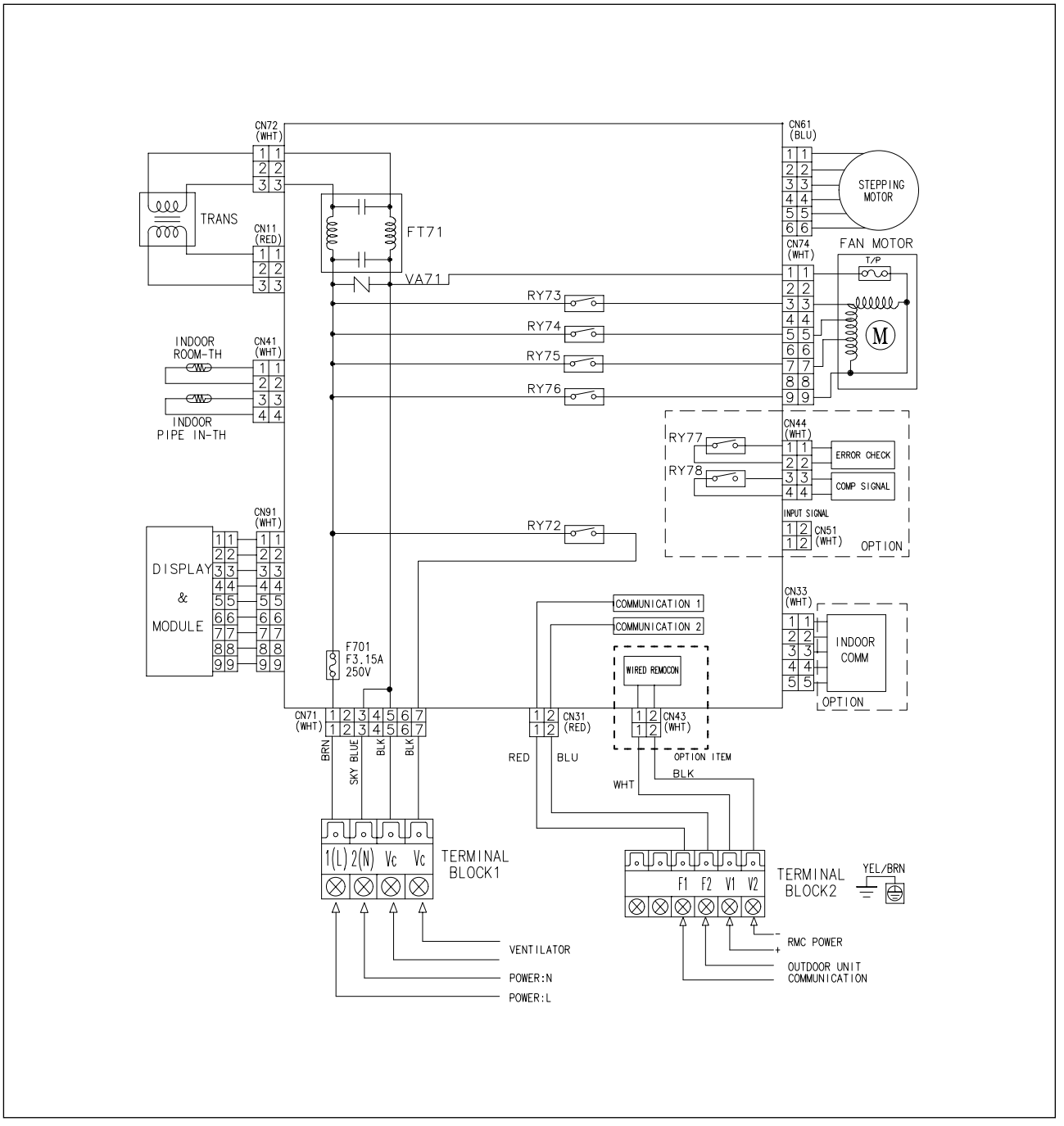
Location No.	Description	Specification	Q'TY
D201,D901~D916	DIODE-SWITCHING	RLS4148,100V,200MA,SOD-80C,TP	17
D101~D105	DIODE-RECTIFIER	1N4007,1000V,1A,DO-41,TP	5
CD31,CD32	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	2
Q201	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1
Q901~Q904	TR-DIGITAL	DTA114EKA,PNP,200MW,10K/10K,SOT-23,TP	4
Q101	TR-DIGITAL	KSR1102,NPN,200MW,10K/10K,SOT-23,TP	1
IC05~IC07	IC-DARLINGTON DRIVER	KID65003AP,DIP,16PIN,300MIL,H	3
IC09	IC-BUS TRANSCEIVER	485,DIP,8P,300MIL,SINGLE,ST,PLASTIC	1
IC03	IC-VOLTAGE COMP.	7533,TO-92,3P,-,SINGLE,-,-,PLASTIC	1
IC01	IC-POSI.FIXED REG.	7812A,TO-220,3P,-,PLASTIC,11.5	1
IC02	IC-POSI.FIXED REG.	7805,TO-220,3P,-,PLASTIC,4.8/5	1
VA72,VA73	VARISTOR	470V,4500A,17x12mm,BK	2
VA71	VARISTOR	560V,2500A,17.5x7.5mm,TP	1
K13~K16,RJ01	R-CARBON	0ohm,5%,1/4W,AA,TP,2.4x6.4mm	5
R301	R-CHIP	120ohm,5%,1/8W,TP,2012	1
R201,R302~R303	R-CHIP	10Kohm,5%,1/8W,TP,2012	20
R312~R319,R513~R517			
R901~R904			
R402,R403	R-CHIP	18Kohm,1%,1/8W,TP,2012	2
R203~R205,R905~R911	R-CHIP	1Kohm,5%,1/8W,TP,2012	10
R401	R-CHIP	24Kohm,1%,1/8W,TP,2012	1
R202	R-CHIP	3.3Kohm,5%,1/8W,TP,2012	1
R404~R406	R-CHIP	330ohm,5%,1/8W,TP,2012	3
C102,C104,C201	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	20
C302~C308,C401~C403			
C801~C804,C905~C907			
C202,C301,C901~C904	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	6
C105	C-AL	470uF,20%,25V,GP,TP,10x12.5mm	1
C101,C103	C-AL	1000uF,20%,35V,GP,TP,13x25,5	2
X501	RESONATOR-CERAMIC	10MHZ,0.5%,BK,8x3x5.5mm	1
FT71	FILTER-EMI AC LINE	250V,1A,UL/CSA/TUV/SEMKO,100000	1
K1~K4	SWITCH-PUSH	125V,1A,SPDT,ON-ON,-	4
SW02,SW03	SWITCH-DIP	5V DC,100mA,SLIDE,-	2
RY71,R76,R77	RELAY-MINIATURE	12VDC,200MW,3000MA,1FORMA,10MS,10M	3
RY72~RY75	RELAY-MINIATURE	12VDC,200MW,5000MA,1FORMA,10MS,5MS	4
F701_1	FUSE-CARTRIDGE	250V,5A,FAST-ACTING,GLASS,5.2x20mm	1
F101	FUSE	250V,1.6A,TIME-LAG,PLASTIC,8.4x7.6mm	1
F701	FUSE-BLOCK	500V,-,100M	1
CN42	CONNECTOR-HEADER	BOX,2P,1R,2.5mm,STRAIGHT,SN,WHT	1
CN12	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1

■ **Parts List(UH070EAMT)(cont.)**

Location No.	Description	Specification	Q'TY
CN31	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1
CN77	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,WH	1
CN72	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,BL	1
CN73	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,WH	1
CN75	CONNECTOR-HEADER	1WALL,4P,1R,7.92mm,STRAIGHT,SN,WH	1
CN70	CONNECTOR-HEADER	BOX,1P,1R,6mm,STRAIGHT,NI,WHT	1
CN11	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1
CN41	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGHT,SN	1
CN61	CONNECTOR-HEADER	BOX,5P,1R,2.5mm,STRAIGHT,SN	1
CN60	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGHT,SN	1
CN71	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,BL	1
CN74	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,YE	1
GT-2	CONNECTOR-TERMINAL	PIN,MALE,#18-22,2.35mm	1
RJ02	JUMPER	7.5	1
DIS1	LED DISPLAY-7SEG	ELD-306GWA,-,2,14,-,15*15.5*7.2,G	1
DIS2	LED DISPLAY-7SEG	ELD-306GWA,-,2,14,-,15*15.5*7.2,G	1
IC04	IC MICOM	MB89538AP-101,MB89538AP-101,64P,+5V,10MHz	1
SW1	SWITCH-DIGITAL	PT65 103,ROTARY DIP,-,DC24V MAX,0.4	1
DS71	POSISTOR	DSA-332MA,2pF MAX,100MOhm,ASM-3	1
RJ03	R-CARBON	12Kohm,5%,1/4W,AA,TP,2.4x6.4mm	1
RJ04	R-CARBON	3Kohm,5%,1/4W,AA,TP,2.4x6.4mm	1

8. Wiring Diagram

8-1 Indoor Unit



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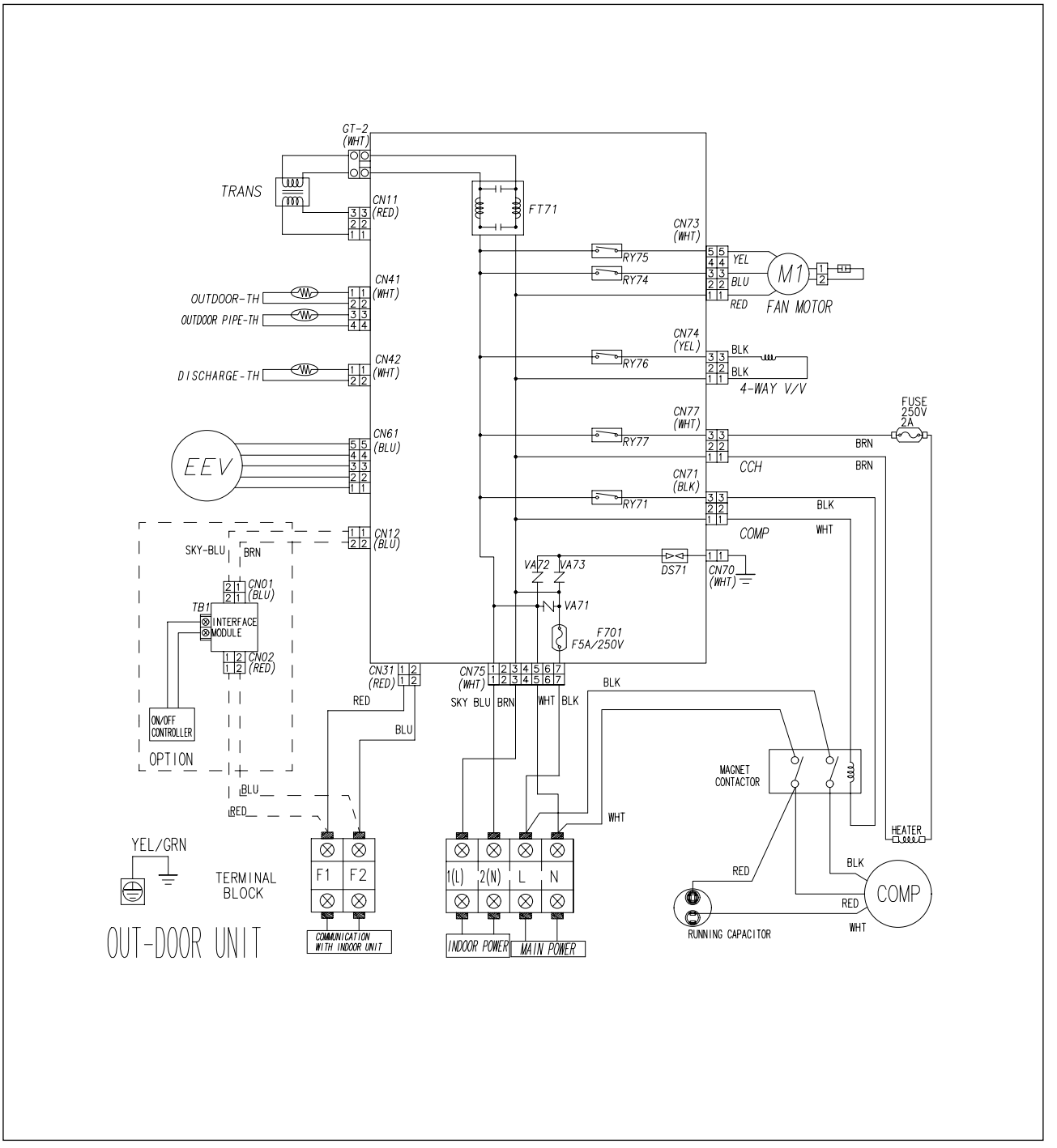

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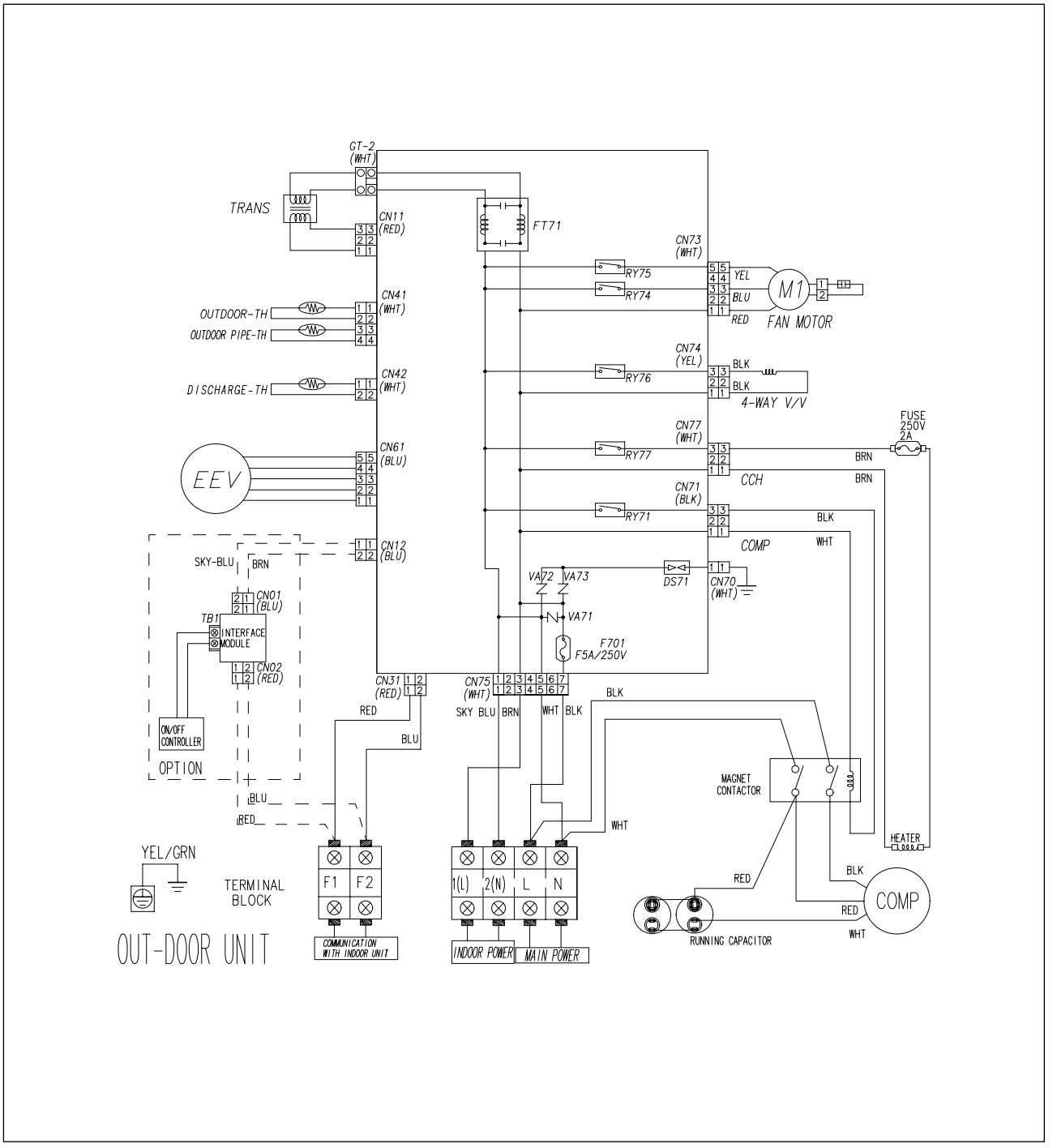

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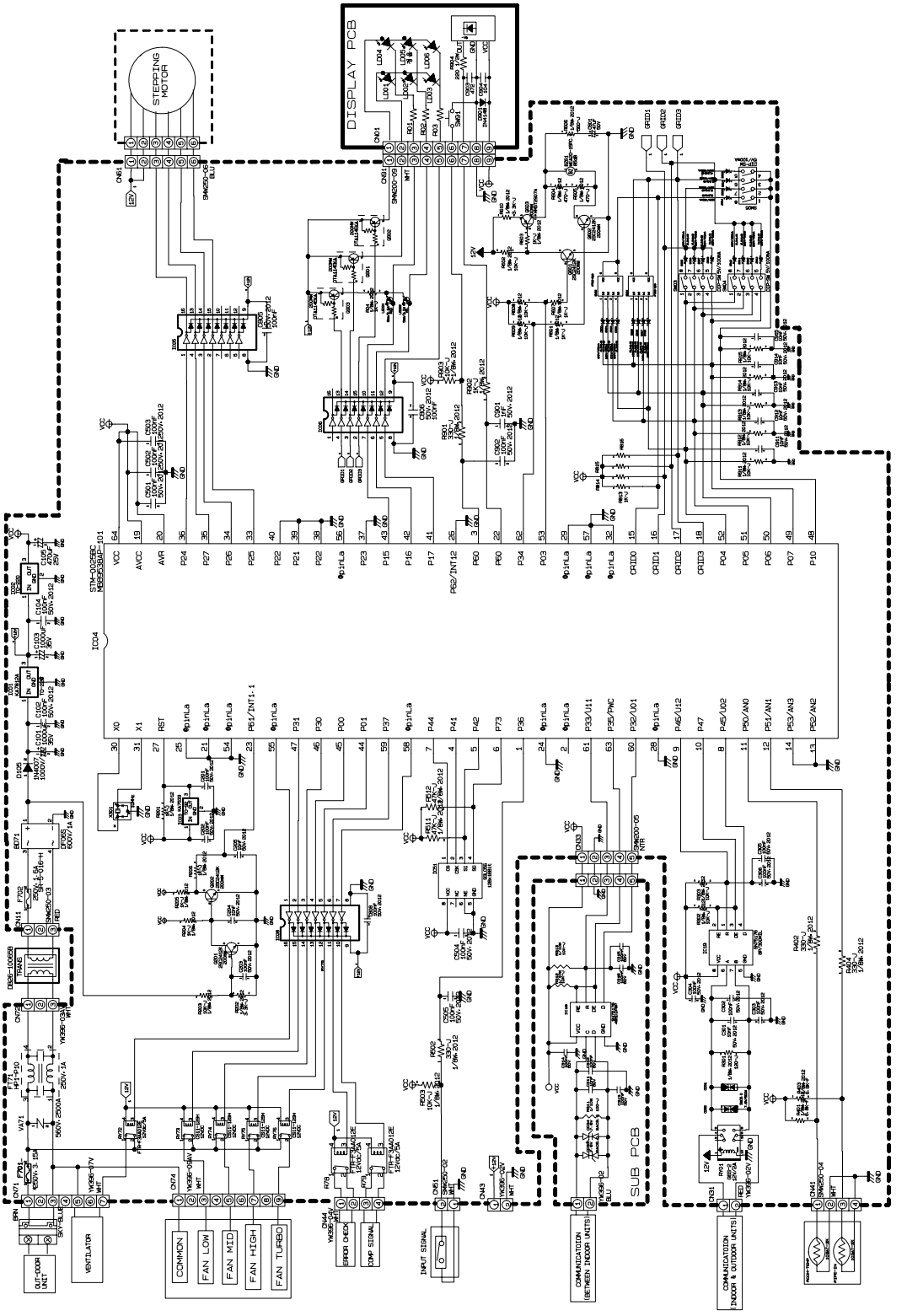
9. Schematic Diagram

9-1 Indoor Unit



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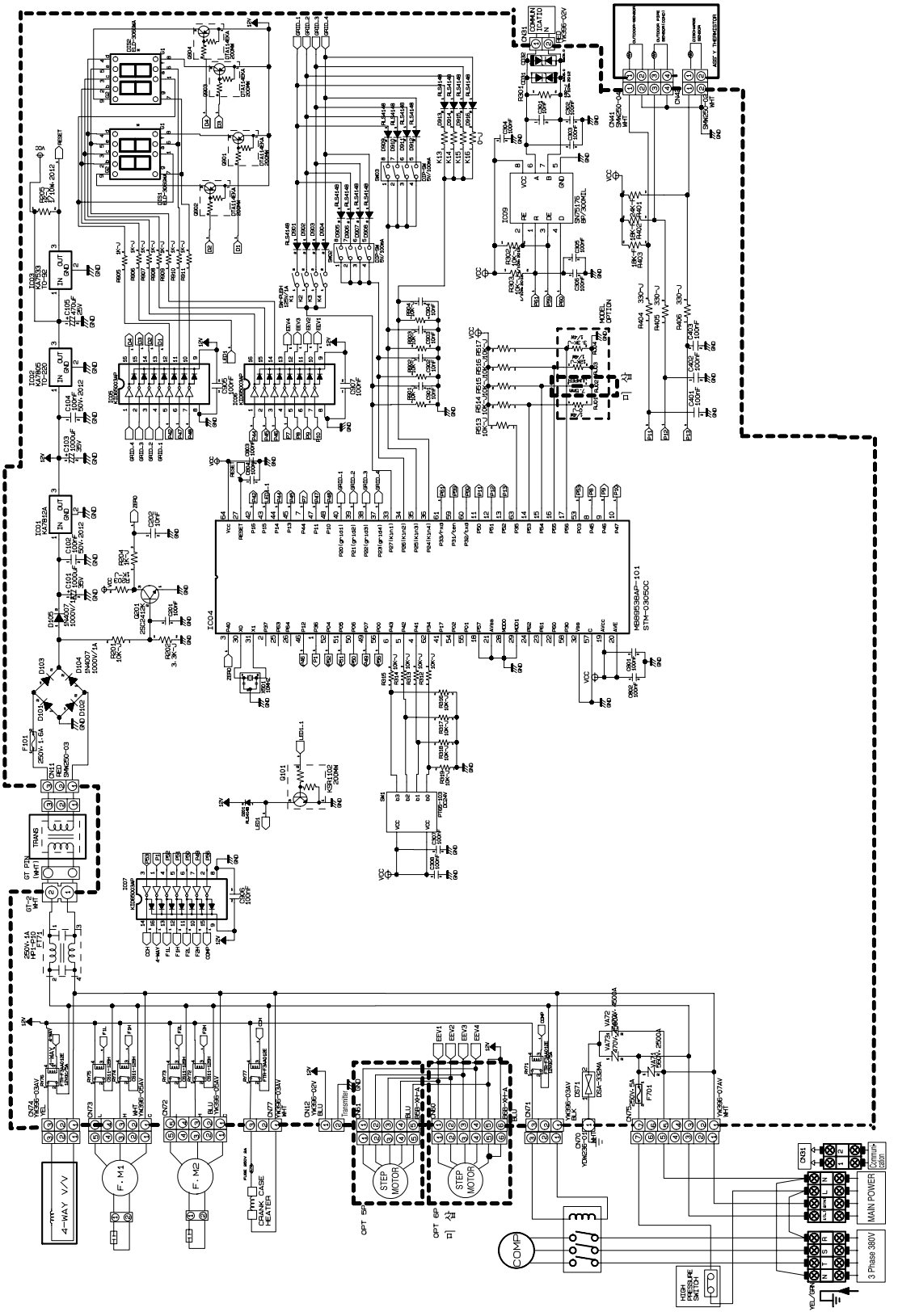

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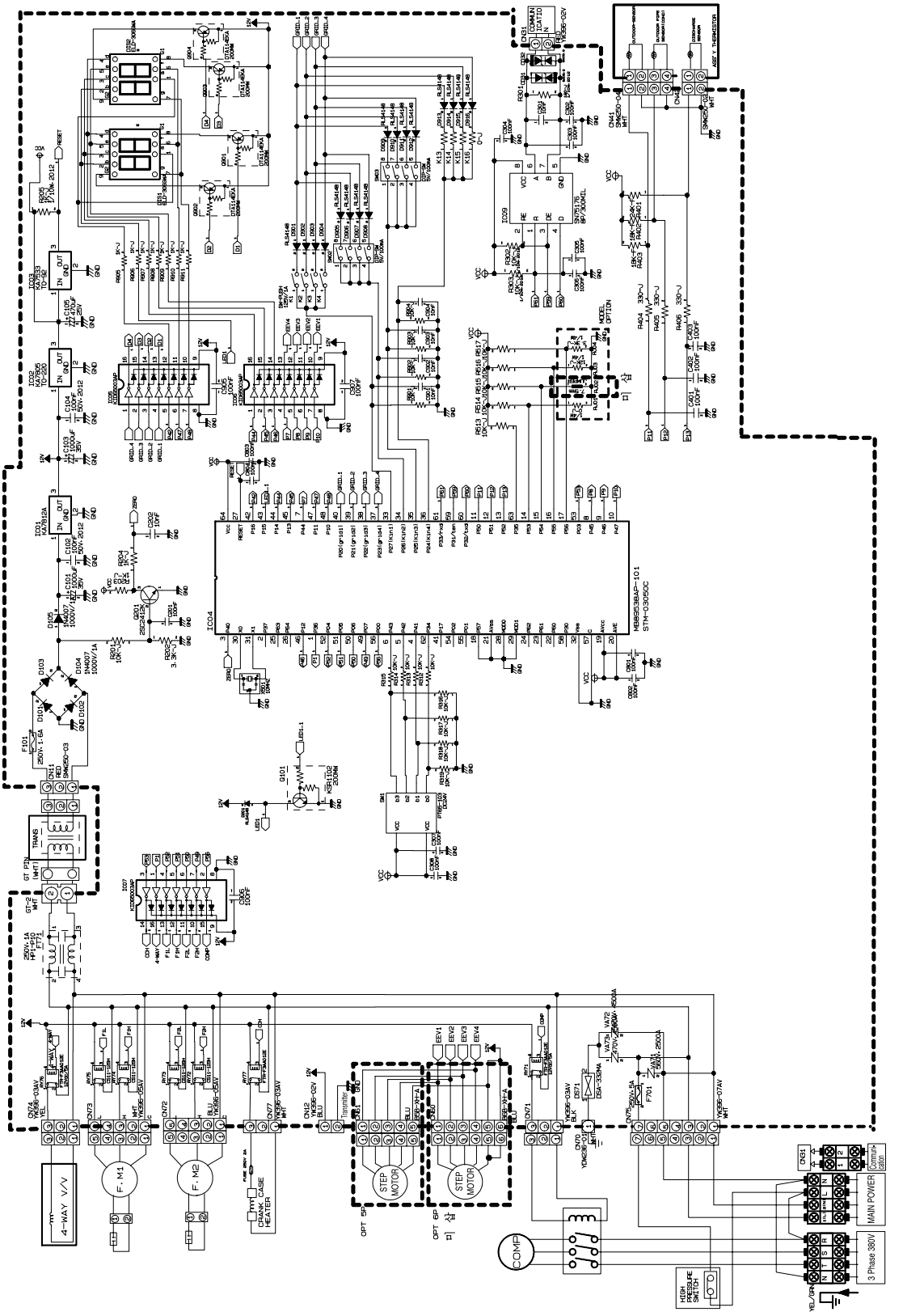

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UPDATE LOG SHEET

Application date	Page	Part#	Note(Cause & Solution)	S/Bulletin#
2005. Feb. 14	21	N/A	Applied New wired controller	-
		- It is just accessary, air-conditioner is not changed, just different error code.		

Use this page to keep any special servicing information. (Service Bulletin, etc.)
If only parts number changes, Just change parts number directly on parts list.
And if you need more information, please see the service website.

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